

SYLLABUS

B.COM. PART-I

GROUPING OF SUBJECTS AND SCHEME OF EXAMINATION

Subject		Max.	Min.
i) Environmental Studies	75	100	33
Field Work	25		
A. Foundation Course			
I. Hindi Language		75	26
II. English Language		75	26
B. Three Compulsory Groups			
Group-I			
I. Financial Accounting	75	150	50
II. Business Communication	75		
Group-II			
I. Business Mathematics	75	150	50
II. Business Reg. Framework	75		
Group-III			
I. Business Environment	75	150	50
II. Business Economics	75		

B.Com Part- I

Compulsory

Group – I Paper – I - Financial Accounting

OBJECTIVE – To Impart basic accounting knowledge as applicable to business.

Present Syllabus	Proposed Syllabus	Remark
<p>UNIT –I Meaning and Scope of Accounting : Need, development and definition, objectives of accounting, difference between Book-keeping and accounting; Branches of accounting; Accounting Principles. Accounting Standard : International Accounting Standard only outlines, Accounting Standard in India. Accounting Transaction : Accounting Cycles Journal Rules of debit & Credit. Compound Journal Entry opening Entry Relationship between Journal & ledger, Capital & Revenue: Classification of Income & Expenditure entries.</p> <p>UNIT –II Final Accounts; Trial balance; Manufacturing account; Trading account; Profit & loss account; Balance sheet; Adjustment entries. Rectification of errors; Classification of errors; Location of errors; Rectification of errors; Suspense account; Effect on profit.</p> <p>UNIT –III Depreciation, Provisions, and Reserves; Concept of depreciation; Causes of deprecation; Depreciation, depletion amortization, Depreciation accounting; Methods of recording depreciation; Methods for providing depreciation; Depreciation of different assets; Depreciation of Replacement cost; Depreciation policy; as per Indian accounting Standard : provisions and Reserves. Accounts of Non-Trading Institutions.</p>	<p>UNIT –I Accounting :An Introduction: Development, Definition, Needs, objectives; Branches of accounting; Basic Accounting Principles, Concepts & Conventions. Accounting Standard : International Accounting Standard only outlines, Accounting Standard in India.. Accounting Transaction : Concept of Double Entry System, Concept of Capital & Revenue , Book of original records : Journal; Ledger; Sub-Division of Journal : Cashbook.</p> <p>UNIT –II Final Accounts; Trial balance; Manufacturing account; Trading account; Profit & loss account; Balance sheet; Adjustment entries. Rectification of errors; Classification of errors; Location of errors; Rectification of errors; Suspense account; Effect on profit.</p> <p>UNIT –III Depreciation, Provisions, and Reserves; Concept of depreciation; Causes of deprecation; Depreciation, depletion amortization, Depreciation accounting; Methods of recording depreciation; Methods for providing depreciation; Depreciation of different assets; Depreciation of Replacement cost; Depreciation policy; as per Indian accounting Standard : provisions and Reserves. Accounts of Non-Trading Institutions.</p>	<p>Addition of Sub Division of journal</p> <p>No Change</p> <p>No Change</p>

Present Syllabus	Proposed Syllabus	Remark
<p>UNIT –IV Special Accounting Areas : Branch Account : Dependent Branch : Debtors system, stock and debtor system ; Hire-purchase and installment purchase system ; Meaning of hire-purchase contract, Legal provision regarding hire-purchase contract; Accounting for goods of substantial sale values, and accounting records for goods for small values ; Installment purchase system ; After sales Service.</p> <p>UNIT –V a. Partnership Account : Essential characteristics of partnership: Partnership deed; Final accounts; Adjustment after closing the accounts ; Fixed fluctuating capital ; Goodwill ; AS- 10 ; Joint Life Policy ; Change in Profit Sharing Ratio. b. Reconstitution of a partnership firm-Admission of a partner ; Retirement of a partner ; Death of a partner; Dissolution of a firm ; Accounting entries; Insolvency of partnership firm-Modes of dissolution of a firm; Accounting entries ; Insolvency of partners distribution.</p>	<p>UNIT –IV Special Accounting Areas : Hire-purchase and installment purchase system : Meaning of hire-purchase contract, Legal provision regarding hire-purchase contract; Accounting for goods of substantial sale values, and accounting records for goods for small values ; Installment purchase system ; After sales Service.</p> <p>UNIT –V Partnership Account : Dissolution of a Partnership Firm, Amalgamation of Partnership Firms, Conversion of Partnership Firm into Joint Stock Company.</p>	<p>Ommission of Branch Accounting</p> <p>Ommission of Fundamental of Partnership, Admission, Retirement and Death of partner.</p> <p>Addition of Amalgamation of Partnership Firms, Conversion of Partnership Firm into Joint Stock Company.</p>

बी,कॉम. भाग – एक
अनिवार्य
समूह-1 प्रश्नपत्र – 1 – वित्तीय लेखांकन

वर्तमान पाठ्यक्रम	प्रस्तावित पाठ्यक्रम
<p>इकाई – 1 लेखांकन का अर्थ एवं क्षेत्र : आवश्यकता, विकास एवं परिभाषा, लेखांकन के उद्देश्य , पुस्तपालन एवं लेखांकन में अन्तर , लेखांकन की शाखाएं। लेखांकन सिद्धांत , लेखांकन मानक : अन्तर्राष्ट्रीय लेखांकन मानक (सिर्फ रूपरेखा) : भारत में लेखांकन मानक। लेखांकन व्यवहार : लेखांकन चक्र : पंजी (जर्नल) : डेबिट (विकलन) एवं क्रेडिट (समाकलन) के नियम, संयुक्त पंजी (जर्नल) प्रविष्टि, प्रारम्भिक प्रविष्टि : जर्नल एवं खाताबाही में सम्बन्ध, पूँजी एवं आगम : आय , व्यय एवं प्राप्तियों का वर्गीकरण।</p> <p>इकाई – 2 तलपट , अन्तिम खाते : निर्माणी खाता, व्यापार खाता, लाभ-हानि खाता, चिट्ठा एवं समायोजन प्रविष्टियाँ। अशुद्धियों का सुधार या संशोधन, अशुद्धियों का वर्गीकरण, अशुद्धियों की स्थिति, अशुद्धियों का सुधार, उचंत खाता लाभ पर प्रभाव।</p> <p>इकाई – 3 मूल्य ह्रास (अवक्षयण), आयोजन एवं संचय ;ह्रास की अवधारणा , ह्रास के कारण, ह्रास रिक्तता, अपलेखन ह्रास लेखांकन, ह्रास अभिलेखन की विधियाँ; विभिन्न सम्पत्तियों पर ह्रास आयोजन की विधियाँ; प्रतिस्थापन लागत पर ह्रास , भारतीय लेखांकन मानक के अनुसार लेखांकन नीतियाँ, आयोजन एवं संचय ;गैर-व्यापारिक संस्थाओं के खाते।</p> <p>इकाई – 4 विशेष लेखांकन क्षेत्र: (क) शाखा खाते : आश्रित शाखा, देनदार पद्धति , स्कन्ध एवं देनदार पद्धति। (ख) किराया क्रय एवं किस्त क्रय पद्धति : किराया क्रय अनुबन्ध का अर्थ, किराया क्रय अनुबन्ध संबंधित प्रॉवधान, अधिक मूल्य की वस्तुओं के लिए लेखांकन अभिलेख , किस्त क्रय पद्धति एवं क्रय पश्चात् सेवा।</p>	<p>इकाई – 1 लेखांकन का परिचय : विकास, परिभाषा, आवश्यकता, उद्देश्य , लेखांकन की शाखाएं ;लेखांकन के सिद्धांत , अवधारणा एवं परंपराएं। लेखांकन मानक : अन्तर्राष्ट्रीय लेखांकन मानक (सिर्फ रूपरेखा) : भारत में लेखांकन मानक। लेखांकन व्यवहार ;दोहरी प्रविष्टि प्रणाली की अवधारणा। पूँजी एवं आगम की अवधारणा, मूल प्रविष्टि की पुस्तकें: जर्नल, खाताबाही, जर्नल का विभाजन : रोकड़ पुस्तक।</p> <p>इकाई – 2 तलपट , अन्तिम खाते : निर्माणी खाता, व्यापार खाता, लाभ-हानि खाता, चिट्ठा एवं समायोजन प्रविष्टियाँ। अशुद्धियों का सुधार या संशोधन, अशुद्धियों का वर्गीकरण, अशुद्धियों की स्थिति, अशुद्धियों का सुधार, उचंत खाता लाभ पर प्रभाव।</p> <p>इकाई – 3 मूल्य ह्रास (अवक्षयण), आयोजन एवं संचय ;ह्रास की अवधारणा , ह्रास के कारण, ह्रास रिक्तता, अपलेखन ह्रास लेखांकन, ह्रास अभिलेखन की विधियाँ; विभिन्न सम्पत्तियों पर ह्रास आयोजन की विधियाँ; प्रतिस्थापन लागत पर ह्रास , भारतीय लेखांकन मानक के अनुसार लेखांकन नीतियाँ, आयोजन एवं संचय ;गैर-व्यापारिक संस्थाओं के खाते।</p> <p>इकाई – 4 विशेष लेखांकन क्षेत्र: किराया क्रय एवं किस्त क्रय पद्धति : किराया क्रय अनुबन्ध का अर्थ, किराया क्रय अनुबन्ध संबंधित प्रॉवधान, अधिक मूल्य की वस्तुओं के लिए लेखांकन अभिलेख , किस्त क्रय पद्धति एवं क्रय पश्चात् सेवा।</p> <p>इकाई – 5 साझेदारी खाते : साझेदारी फर्म का विघटन, साझेदारी फर्मों का एकीकरण, साझेदारी</p>

वर्तमान पाठ्यक्रम	प्रस्तावित पाठ्यक्रम
<p>इकाई – 5</p> <p>(क) साझेदारी खाते : साझेदारी की सारभूत विशेषताएँ, साझेदारी संलेख ; अन्तिम खाते , खाते बंद होने के पश्चात् समायोजन; स्थिर एवं परिवर्तनशील पूँजी, ख्याति-लेखांकन मानक 10 संयुक्त जीवन बीमा पॉलिसी, लाभ विभाजन अनुपात में परिवर्तन, (ख) साझेदारी फर्म का पुनर्निर्माण ;फर्म में साझेदार का प्रवेश; साझेदार का अवकाश ग्रहण;साझेदार की मृत्यु, फर्म का विघटन, लेखांकन प्रविष्टियाँ, साझेदारी फर्म का दिवालिया होना, फर्म के विघटन की विधियाँ, लेखांकन प्रविष्टियाँ, साझेदार का दिवालिया होना, वितरण ।</p>	<p>फर्म की संयुक्त स्कन्ध प्रमण्डल में परिवर्तन।</p>

Suggested Readings:

1. Gupta, R.L. and Radhaswamy. M; Financial Accounting ; Sultan Chand and Sons, New Delhi. (Both Hindi and English medium)
2. Monga J.R. Ahuja Girish, and Sehgal Ashok : Financial Accounting ; Mayur Paper Back, Noida.
3. Shukla. M.C., Grewal T.S. and Gupta, S.C. : Advanced Accounts; S. Chand & Co.. New delhi.
4. Singh B.K. ; Financial Accounting; Wisdom Publishing House, Varanasi.
5. S.M. Shukla; Financial Accounting ; Sahitya Bhawan Publication ; Agra. (Both Hindi and English medium)
6. Karim & Khanuja ; Financial Accounting ; SBPD Publishing House ; Agra. (Both Hindi and English medium)
7. Agrawal & Mangal ; Financial Accounting; Universal Publication. (Both Hindi and English medium)

B.Com Part- I

Compulsory

Group – II Paper – I - Business Mathematics

OBJECTIVE – To enable the students to have such minimum knowledge of mathematics as is applicable to business and economic situations.

Present Syllabus	Proposed Syllabus	Remark
<p>UNIT –I Calculus (problems and theorems involving trigonometrical ratios are not to be done) Differentiation : Partial derivatives up to second order ; Homogeneity of functions and Euler’s theorem. Maxima And Minima; Cases of one variable involving second or higher order derivatives: logarithm’s</p> <p>UNIT –II Matrices and Determinants : Definition of a matrix ; Type of a matrices ; Algebra of matrices ; Properties of determinants ; Calculation of values of determinants upto third order ; Adjoint of a matrix, elementary of row or column operations; Finding inverse of a matrix through adjoint and elementary row or column operations; Solution of a system of linear equations having unique solution and involving not more than three variables.</p> <p>UNIT –III Linear Programming –Formulation of LLP : Graphical method of solution ; Problems relating to two variables including the case of mixed constraints ; Cases having no solution, multiple solutions : unbounded solutions and redundant constraints. Transportation Problem , Ratio & Proportion.</p> <p>UNIT –IV Compound interest and Annuities : Certain different types of interest rates ; Concept of present value and amount of a sum ; Types of annuities ; Present value and amount of an annuity, including the case of continuous compounding ; Valuation of simple loans and debentures; Problems relating to sinking funds.</p> <p>UNIT –V Average, Percentages, Commission Brokerage, Profit and loss.</p>	<p>UNIT –I Simultaneous Equations– Meaning, Characteristics, Methods of Solving Equations in Two Variables– Graphical, Substitution, Elimination and Cross Multiplication. Linear Programming –Formulation of LLP : Graphical method of solution ; Problems relating to two variables including the case of mixed constraints .</p> <p>UNIT –II Matrices and Determinants : Definition of a matrix ; Type of a matrices ; Algebra of matrices ; Properties of determinants ; Calculation of values of determinants upto third order ; Logarithm’s & Antilogarithm’s.</p> <p>UNIT –III Simple interest and Compound Interest . Annuities : Types of annuities ; Present value and amount of an annuity, including the case of continuous compounding ; Valuation of simple loans and debentures; Problems relating to sinking funds.</p> <p>UNIT –IV Ratio & Proportion. Average, Percentage.</p> <p>UNIT –V Commission, Brokerage, Discount, Profit and loss.</p>	<p>Omission of Calculus - Differentiation .</p> <p>Addition of Chapter Simultaneous Equation.</p> <p>Omission of Adjoint, elementary of row or column operations; inverse of a matrix.</p>

बी,कॉम. भाग – एक
अनिवार्य

समूह-2 प्रश्नपत्र – 1 – व्यावसायिक गणित

वर्तमान पाठ्यक्रम	प्रस्तावित पाठ्यक्रम
<p>इकाई – 1 कलन : अवकलन : आंशिक अवकलज— द्वितीय क्रम तक, फलनो की समघातीयता एवं यूलर प्रमेय, उच्चिष्ठ एवं निम्निष्ठ – एक चर के द्वितीय या उच्च क्रम से जुड़े सवाल । लघुगणक ।</p> <p>इकाई – 2 आव्यूह एवं सारणिक : आव्यूह की परिभाषा , आव्यूह के प्रकार, आव्यूह बीजगणित, सारणिक के गुण, तृतीयक्रम के सारणिकों के मान की गणना, आव्यूह का सहखण्डज , पंक्ति या स्तम्भ मूल क्रियाएं, मूल पंक्ति या स्तम्भ क्रियाओं द्वारा आव्यूह का व्युत्क्रम ज्ञात करना , अद्वितीय हल रखने वाली तथा तीन से अधिक चर न रखने वाली युगपत् समीकरणों का हल ।</p> <p>इकाई – 3 रेखीय प्रक्रमन : रेखीय प्रक्रमन समस्या को गणितीय रूप में लिखना : ग्राफीक विधि से हल, समस्या का कोई सम्भव हल नहीं, अनेक हल, असीम समस्या का हल, व्यर्थ निबाध । परिवहन समस्या , अनुपात एवं समानुपात ।</p> <p>इकाई – 4 चक्रवृद्धि ब्याज एवं वार्षिकी : विभिन्न प्रकार की ब्याज दरें, वर्तमान मूल्य एवं मिश्रधन की गणना, वार्षिकी के प्रकार , वार्षिकी का वर्तमान मूल्य एवं मिश्रधन, ब्याज का सतत संयोजन, साधारण ऋण एवं ऋणपत्र का मूल्यांकन , शोधन निधि के प्रश्न ।</p> <p>इकाई – 5 औसत, प्रतिशतता, कमीशन एवं दलाली, लाभ एवं हानि</p>	<p>इकाई – 1 – युगपद् समीकरण – अर्थ, विशेषताएं, दो चर वाले समीकरण को हल करने की विधियाँ – रेखीय विधि,प्रतिस्थापन विधि, विलोपन विधि, वज्रगुणन विधि । रेखीय प्रक्रमन : रेखीय प्रक्रमन समस्या को गणितीय रूप में लिखना : ग्राफीक विधि से हल, द्विचर से संबंधित मिश्रित निबाध समस्याएं ।</p> <p>इकाई – 2 आव्यूह एवं सारणिक : आव्यूह की परिभाषा , आव्यूह के प्रकार, आव्यूह बीजगणित, सारणिक के गुण, तृतीयक्रम के सारणिकों के मान की गणना । लघुगणक एवं प्रतिलघुगणक ।</p> <p>इकाई – 3 साधारण ब्याज एवं चक्रवृद्धि ब्याज । वार्षिकी : वार्षिकी के प्रकार , वार्षिकी का वर्तमान मूल्य एवं मिश्रधन, ब्याज का सतत संयोजन, साधारण ऋण एवं ऋणपत्र का मूल्यांकन , शोधन निधि के प्रश्न ।</p> <p>इकाई – 4 अनुपात एवं समानुपात । औसत : साधारण, भारित एवं सांख्यिकीय औसत (समान्तर माध्य) । प्रतिशतता ।</p> <p>इकाई – 5 कमीशन, दलाली, बट्टा, लाभ एवं हानि । परिवहन समस्या ।</p>

Suggested Readings:

1. Dr. Amarnath Dikshit, Dr. Jinendra Kumar Jain; Business Mathematics ;Himalaya Publishing House, Mumbai. (Both Hindi and English medium)
2. N.K. Nag : Business Mathematics; Kalyani publication, New Delhi. .
3. Dr. V.K. Shukla. : Business Mathematics; Madhya Pradesh hindi Granth Academy: Bhopal.
4. S.M. Shukla; Business Mathematics; Sahitya Bhawan Publication ; Agra. (Both Hindi and English medium)
5. Dr. Karim & Agrawal ; Business Mathematics; SBPD Publishing House ; Agra. (Both Hindi and English medium)
6. Dr. Ramesh Mangal; Business Mathematics; Satish Printer and Publishers, Indore.

B.Com Part- I

Compulsory

Group – I Paper – II - BUSINESS COMMUNICATION

OBJECTIVE – To develop effective business communication skills among the students.

Present Syllabus	Proposed Syllabus	Remark
<p>UNIT –I Introducing Business Communication : Definitions, concept and Significance of communication, Basic forms of communicating ; Communication models and process principles of effective communication; Theories of communication; Audience analysis. Self Development and Communication ; Development of positive personal attitudes, SWOT analysis; Vote’s model of interdependence ; Whole Communication.</p> <p>UNIT –II Corporate Communication : Formal and Informal communication networks; Grapevine; Miscommunication (Barriers) ; improving communication Practices in business communication ; Group discussions ; Mock interviews, Seminars; Effective listening exercises, Individual and group presentations and report writing.</p> <p>UNIT –III Writing skill : Planning business messages; Rewriting and editing; The first draft; Reconstructing the final draft; Business letters and memo formats; Appearance request letters; Good news and bad new letters; Persuasive letters; Sales letters; Collection letters; Office memorandum.</p> <p>UNIT –IV Report Writing : Introduction to a proposal, Short report and formal report , report preparation. Oral Presentation : Principles of oral presentation, factor affecting presentation, sales presentation, training presentation, conducting surveys, speeches to motivate, presentation skill.</p>	<p>UNIT –I Introducing Business Communication : Definitions, concept and Significance of communication, Basic forms of communicating ; Communication models and process; principles of effective communication; Theories of communication; Self-Development and Communication ; Development of positive personal attitudes, SWOT analysis;</p> <p>UNIT –II Corporate Communication : Formal and Informal communication networks; Grapevine; Miscommunication (Barriers) ; improving communication. Practices in business communication ; Group discussions ; Seminars; Effective Listening : Principles of effective listening; Factor affective listening exercises; Oral, Written, and video session, Audience analysis and feedback.</p> <p>UNIT –III Writing skill : Business letters – Defination, concepts ,structure, advantages disadvantage, need and kinds of business letter ,Essentials of effective business letter. Good news and bad new letters; Office memorandum. Writing Resume and Letter of Job Application.</p> <p>UNIT –IV Report Writing : Introduction to a proposal, Short report and formal report , report preparation. Oral Presentation : Principles of oral presentation, factor affecting presentation, sales presentation, training presentation, conducting surveys, speeches to motivate, presentation skill.</p>	<p>Omission of Vote’s model of interdependence.</p> <p>Balancing of Syllabus and omitted repeatation .</p>

Present Syllabus	Proposed Syllabus	Remark
<p>UNIT –V Non-Verbal Aspects of Communicating. Body Language : Kinesics, Proxemics, Para Language. Effective listening : Principles of effective listening; Factor affective listening exercises; Oral, Written, and video session. Interviewing skills : Appearing in interviews; Conducting interviews; writing resume and letter of application . Modern Forms of Communicating : Fax; E-Mail; video conferencing; etc. International Communication ; Cultural sensitiveness and cultural context ; Writing and presenting in international situations; Inter cultural factors in interactions; Adapting to Global business.</p>	<p>UNIT –V Non-Verbal Aspects of Communicating. Body Language : Kinesics, Proxemics, Para Language. Interviewing skills : Appearing in interviews; Conducting interviews; mock interview. Modern Forms of Communicating : Fax; E-Mail; video conferencing; etc. International Communication for global business.</p>	

बी,कॉम. भाग – एक
अनिवार्य

समूह-1 प्रश्नपत्र – 2 – व्यावसायिक संचार

वर्तमान पाठ्यक्रम	प्रस्तावित पाठ्यक्रम
<p>इकाई – 1 व्यावसायिक संचार परिचय : परिभाषा , अवधारणाएं एवं संचार का महत्व, संचार के आधारभूत प्रकार एवं मॉडल एवं प्रभावी संचार के सिद्धांत , प्रक्रिया , श्रोता विश्लेषण। आत्म विकास एवं संचार , सकारात्मक व्यक्तिगत दृष्टिकोण का विकास , स्वीट विश्लेषण , मतों की परस्पर निर्भरता का प्रतिरूप।</p> <p>इकाई – 2 व्यावसायिक संस्था का संचार तंत्र :- औपचारिक एवं अनौपचारिक संचार तंत्र, अंगूरी लता संचार, संचार की बाधाएं एवं सुधार। व्यवहार में व्यावसायिक संचार :- सामूहिक परिचर्चा, साक्षात्कार, संगोष्ठी , प्रभावपूर्ण सूनना , व्यक्तिगत एवं सामूहिक प्रस्तुतीकरण एवं रिपोर्ट लेखन।</p> <p>इकाई – 3 लेखन कुशलता : व्यावसायिक संदेश की योजना एवं उसे संशोधित करना, प्रथम मसौदा, अंतिम मसौदा का पुनर्निर्माण , व्यावसायिक पत्र एवं ज्ञापन, प्रारूप : निवेदन पत्र , अनुकूल एवं प्रतिकूल संवाद पत्र, प्रेरक पत्र, विक्रय संबंधी पत्र, तकादे का पत्र या संग्रहण पत्र ,कार्यालयीन ज्ञापन व पत्र ।</p> <p>इकाई – 4 रिपोर्ट लेखन – एक प्रस्ताव का परिचय , लघु रिपोर्ट एवं औपचारिक रिपोर्ट ,रिपोर्ट लेखन की तैयारी। मौखिक प्रस्तुती : मौखिक प्रस्तुती के सिद्धांत , प्रस्तुतीकरण को प्रभावित करने वाले कारक, विक्रय प्रस्तुतीकरण , प्रशिक्षण प्रस्तुतीकरण, सर्वेक्षण आयोजित करना, प्रेरक भाषण, प्रभावी प्रस्तुती कौशल।</p>	<p>इकाई – 1 व्यावसायिक संचार परिचय : परिभाषा , अवधारणाएं एवं संचार का महत्व, संचार के आधारभूत प्रकार एवं मॉडल, प्रक्रिया एवं प्रभावी संचार के सिद्धांत । आत्म विकास एवं संचार , सकारात्मक व्यक्तिगत दृष्टिकोण का विकास , स्वीट विश्लेषण ।</p> <p>इकाई – 2 व्यावसायिक संस्था का संचार तंत्र :- औपचारिक एवं अनौपचारिक संचार तंत्र, अंगूरी लता संचार, संचार की बाधाएं एवं सुधार। व्यवहार में व्यावसायिक संचार :- सामूहिक परिचर्चा, संगोष्ठी , प्रभावपूर्ण सूनना : प्रभावपूर्ण सूनने के सिद्धांत, प्रभावपूर्ण सूनने के कारक, मौखिक , लिखित एवं विडियो सत्र का व्यवहारिक अध्ययन, श्रोता विश्लेषण एवं प्रतिपुष्टी।</p> <p>इकाई – 3 लेखन कुशलता : व्यावसायिक पत्र – परिभाषा, अवधारणा, संरचना, गुण दोष , आवश्यकता एवं विभिन्न प्रकार के व्यावसायिक पत्र , प्रभावी व्यापारिक पत्र व्यवहार के मूल तत्व। अनुकूल एवं प्रतिकूल संवाद पत्र, कार्यालयीन ज्ञापन व पत्र । जीवनवृत्त लेखन एवं नौकरी के लिए आवेदन पत्र।</p> <p>इकाई – 4 रिपोर्ट लेखन – एक प्रस्ताव का परिचय , लघु रिपोर्ट एवं औपचारिक रिपोर्ट ,रिपोर्ट लेखन की तैयारी। मौखिक प्रस्तुती : मौखिक प्रस्तुती के सिद्धांत , प्रस्तुतीकरण को प्रभावित करने वाले कारक, विक्रय प्रस्तुतीकरण , प्रशिक्षण प्रस्तुतीकरण, सर्वेक्षण आयोजित करना, प्रेरक भाषण, प्रभावी प्रस्तुती कौशल।</p>

वर्तमान पाठ्यक्रम	प्रस्तावित पाठ्यक्रम
<p>इकाई – 5 अशाब्दिक संचार के पहलू – दैहिक भाषा : समय एवं पार्श्व भाषा , प्रभावपूर्ण सूचना : प्रभावपूर्ण सूचने के सिद्धांत, प्रभावपूर्ण सूचने के कारक, मौखिक , लिखित एवं विडियो सत्र का व्यवहारिक अध्ययन। साक्षात्कार कुशलता : साक्षात्कार में शामिल होना, साक्षात्कार का आयोजन, जीवनवृत्त – सारांश लेखन एवं आवेदन पत्र। संचार के आधुनिक रूप – फ़ैक्स , ई मेल, वीडियो कॉन्फ़ेसिंग आदि अंतराष्ट्रीय संचार : सांस्कृतिक संवेदनशीलता एवं सांस्कृतिक संदर्भ , अंतराष्ट्रीय स्थितियों में लेखन और प्रस्तुतीकरण करना : अंतराष्ट्रीय क्रियाओं में अंतराष्ट्रीय सांस्कृतिक कारक , वैश्विक व्यापार के संदर्भ में।</p>	<p>इकाई – 5 अशाब्दिक संचार के पहलू – दैहिक भाषा , समय एवं पार्श्व भाषा , साक्षात्कार कुशलता : साक्षात्कार में शामिल होना, साक्षात्कार का आयोजन, मॉक साक्षात्कार। संचार के आधुनिक रूप – फ़ैक्स , ई मेल, वीडियो कॉन्फ़ेसिंग आदि अंतराष्ट्रीय संचार : सांस्कृतिक संवेदनशीलता एवं सांस्कृतिक संदर्भ , भूमण्डलीय व्यावसाय के लिए अंतराष्ट्रीय संप्रेषण।</p>

Suggested Readings:

1. Dr. P. K. Agrawal, Dr. A.K. Mishra ; Business Communication ; Sahitya Bhawan Publication ; Agra (Hindi medium)
2. Balasubramanyam: Business Communication; Vikas Publishing House, Delhi. (English medium)
3. Dr. Vinod Mishra : Business Communication; Sahitya Bhawan Publication ; Agra. (Hindi medium)
4. Kaul : Effective Business Communication; Prentice Hall, New Delhi. (English medium)
5. Patri VR : Essentials of Communication ; Greenspan Publications, New Delhi. (English medium)
6. Senguin J : Business Communication; The Real World and Your Career, Allied Publishers , New Delhi. (English medium)
7. Dr. Mishra , Shukla & Patel ; Business Communication ; SBPD Publishing House, Agra. (Both Hindi and English medium)

B.Com Part- I Compulsory

Group – II Paper – II – BUSINESS REGULATORY FRAMEWORK

OBJECTIVE – To provide a brief idea about the framework of Indian business laws.

Present Syllabus	Proposed Syllabus	Remark
<p>UNIT –I Law of Contract (1872) : Nature of contract ; Classification ; Offer and acceptance; Capacity of parties to contract, free consent, Considerations, Legality of object; Agreement declared void; Performance of contract; Discharge of contract; Remedies for breach of contract.</p> <p>UNIT –II Special contracts; Indemnity ; Guarantee; Bailment and pledge; Agency.</p> <p>UNIT –III Sale of Goods Act (1930) ;Formation of contracts of sale ;Goods and their classification, price, Conditions and warranties; Transfer of property in goods; Performance of the contract of sales; Unpaid seller and his rights; sale by auction; Hire purchase agreement.</p> <p>UNIT –IV Negotiable Instrument Act (1881) : Definition of negotiable instrument; Feature; Promissory note; Bill of exchange & cheque; Holder and holder in the due course; Crossing of a cheque, types of crossing; Negotiation; Dishonor and discharge of negotiable instrument.</p> <p>UNIT –V The Consumer Protection Act 1986 : Salient features; Definition of consumer ; Grievance redressal machinery; Foreign Exchange Management Act 2000 : Definition and main provisions, Right to Information Act 2005(Main Provision)</p>	<p>UNIT –I Law of Contract (1872) –I : Nature of contract ; Classification ; Offer and acceptance; Capacity of parties to contract, free consent, Considerations, Legality of object; Agreement declared void.</p> <p>UNIT –II Law of Contract (1872) - II : Performance of contract, Discharge of contract; Remedies for breach of contract. Special contracts; Indemnity ; Guarantee; Bailment and pledge; Agency.</p> <p>UNIT –III Sale of Goods Act (1930) ;Formation of contracts of sale ;Goods and their classification, price, Conditions and warranties; Transfer of property in goods; Performance of the contract of sales; Unpaid seller and his rights; sale by auction; Hire purchase agreement.</p> <p>UNIT –IV Negotiable Instrument Act (1881) : Definition of negotiable instrument; Feature; Promissory note; Bill of exchange & cheque; Holder and holder in the due course; Crossing of a cheque, types of crossing; Negotiation; Dishonor and discharge of negotiable instrument.</p> <p>UNIT –V The Consumer Protection Act 1986 : Main Provision, Definition of consumer ,Consumer Disputes , Grievance redressal machinery ; Indian Partnership Act 1932. Limited Liabilities Partnership Act 2008. Introduction of Intellectual Property Right Act – Copyright, Patent & Trademark.</p>	<p style="text-align: center; background-color: yellow;">Balancing of Syllabus</p> <p>Replaced FEMA & RTI with Partnership act, LLP Act 2008 and Intellectual property right act.</p>

बी,कॉम. भाग – एक
अनिवार्य

समूह-2 प्रश्नपत्र – 2 – व्यावसायिक नियमन रूपरेखा

वर्तमान पाठ्यक्रम	प्रस्तावित पाठ्यक्रम
<p>इकाई – 1 भारतीय अनुबंध अधिनियम (1872) : अनुबंध की प्रकृति : वर्गीकरण , प्रस्ताव तथा स्वीकृति, अनुबंध के योग्य पक्षकार , पक्षकारों की स्वतंत्र सहमति , प्रतिफल, उद्देश्य की वैधता , व्यर्थ घोषित ठहराव : अनुबंध का निष्पादन , अनुबंधों की समाप्ति , अनुबंध भंग के उपाय एवं परिणाम।</p> <p>इकाई – 2 विशिष्ट अनुबंध : क्षतिपूर्ति , प्रतिभूति, निक्षेप, गिरवी अनुबंध, एजेंसी।</p> <p>इकाई – 3 वस्तु विक्रय अधिनियम (1930) : वस्तु विक्रय अनुबंध का निर्माण , माल का वर्गीकरण , कीमत, शर्तें और आश्वासन , माल के स्वामित्व का हस्तांतरण, विक्रय अनुबंध का निष्पादन , अदत्त विक्रेता के अधिकार , नीलाम द्वारा विक्रय , किराया क्रय ठहराव।</p> <p>इकाई – 4 विनिमय साध्य विलेख अधिनियम (1881) : परिभाषाएं, विशेषताएं , प्रतिज्ञा पत्र, विनिमय विपत्र और धनादेश (चैक) : धारक तथा यथाविधिधारी , रेखांकित चैक, रेखांकन के प्रकार, परक्रामण, विनिमय साध्य विलेख का अनदारण व मुक्ति।</p> <p>इकाई – 5 उपभोक्ता संरक्षण अधिनियम (1986) : मुख्य विशेषताएं , उपभोक्ता की परिभाषा , उपभोक्ता विवाद निवारण अभिकरण। मुख्य प्रावधान , सूचना का अधिकार अधिनियम (2005) – मुख्य प्रावधान।</p>	<p>इकाई – 1 भारतीय अनुबंध अधिनियम (1872) : अनुबंध की प्रकृति : वर्गीकरण , प्रस्ताव तथा स्वीकृति, अनुबंध के योग्य पक्षकार , पक्षकारों की स्वतंत्र सहमति , प्रतिफल, उद्देश्य की वैधता , व्यर्थ घोषित ठहराव।</p> <p>इकाई – 2 अनुबंध का निष्पादन ; अनुबंधों की समाप्ति , अनुबंध भंग के उपाय एवं परिणाम। विशिष्ट अनुबंध : क्षतिपूर्ति , प्रतिभूति, निक्षेप , गिरवी अनुबंध, एजेंसी।</p> <p>इकाई – 3 वस्तु विक्रय अधिनियम (1930) : वस्तु विक्रय अनुबंध का निर्माण , माल का वर्गीकरण , कीमत, शर्तें और आश्वासन , माल के स्वामित्व का हस्तांतरण, विक्रय अनुबंध का निष्पादन , अदत्त विक्रेता के अधिकार , नीलाम द्वारा विक्रय , किराया क्रय ठहराव।</p> <p>इकाई – 4 विनिमय साध्य विलेख अधिनियम (1881) : परिभाषाएं, विशेषताएं , प्रतिज्ञा पत्र, विनिमय विपत्र और धनादेश (चैक) : धारक तथा यथाविधिधारी , रेखांकित चैक, रेखांकन के प्रकार, परक्रामण, विनिमय साध्य विलेख का अनदारण व मुक्ति।</p> <p>इकाई – 5 उपभोक्ता संरक्षण अधिनियम (1986) : मुख्य विशेषताएं , उपभोक्ता की परिभाषा , उपभोक्ता विवाद निवारण अभिकरण। भारतीय साझेदारी अधिनियम 1932। सीमित दायित्व वाली साझेदारी अधिनियम 2008। बौद्धिक संपदा अधिकार अधिनियम का परिचय – कॉपीराइट, पेटेंट एवं ट्रेडमार्क।</p>

Suggested Readings:

1. Kuchal M.C. ; Business Law ; Vikas Publishing House, Delhi. (English medium)
2. Kapoor N.D. : Business Law ; Sultan Chand & Sons, New Delhi. (English medium)
3. Chandha P.R. : Business Law; Galgotia ,New Delhi. (English medium)
4. Dr. J.K. Vaishnav : Business Law; Sahitya Bhawan publication, Agra. (English medium)
5. Prof. R. C. Agrawal; Business Regulatory Framework; SBPD Publishing House, Agra. (Hindi medium)
6. K.R. Bulchandani; Business Law; Himalaya Publishing House , Mumbai. (Both Hindi and English medium)
7. R.L. Navlakha; Business Law; Ramesh Book depot, Jaipur. (Both Hindi and English medium)
8. Arun Kumar Gangele; Business Regulatory Framework; Ram Prasad & Sons, Agra. (Hindi medium)

B.Com Part- I Compulsory

Group – III Paper – I– BUSINESS ENVIRONMENT

OBJECTIVE – To acquainting the students with the emerging issues in business at the national and international level in the light of the policies of liberalization and globalization.

Present Syllabus	Proposed Syllabus	Remark
<p>UNIT –I Indian Business Environment : Concept, components and importance Economic Trends (overview) : Income : Saving and investment ; industry; Trade and balance of payment, Money ; Finance ; Prices.</p> <p>UNIT –II Problems of Growth : Unemployment ; Poverty ; Regional imbalances ; social injustice; Inflation ; Parallel economy ; Industrial sickness.</p> <p>UNIT –III Role of Government ; Monetary and fiscal policy ; Industrial policy ; Industrial licensing. Privatization ; Devaluation; Export-Import policy; Regulation of foreign investment; Collaborations in the light of recent changes.</p> <p>UNIT –IV Review of Previous Plans, the current five year Plan, major policy, Resources Allocation.</p> <p>UNIT –V International Environment ; international trading environment (overview); Trends in World trade and the problems of developing countries; Foreign trade and economic growth; International economic groupings ; International economic institutions – GATT. WTO World Bank. IMF; FDI; Counter trade.</p>	<p>UNIT –I Business Environment : Concept, Components and Importance ,Economic Trends (overview) : Income : Saving and investment ; Trade and balance of payment, Money and Finance .</p> <p>UNIT –II Problems of Growth : Unemployment ; Poverty ; Regional imbalances ; Social Injustice;Inflation ; Parallel economy ; Industrial sickness.</p> <p>UNIT –III Role of Government ; Monetary and fiscal policy ; Industrial policy ; Industrial licensing. Privatization ; Liberalisation, Globalisation Devaluation; Demonitisation; Export-Import policy.</p> <p>UNIT –IV Economic Planning in India : Need, objectives, Strategy; Review of Previous Plans, Planning Commission. Foreign Exchange Management Act 2000 : Basic Concept and Main Provisions.</p> <p>UNIT –V International Environment ; Trends in World trade and the problems of developing countries; Foreign trade and economic growth; International economic groupings – GATT. ,WTO ,UNCTAD, World Bank, IMF; FDI.</p>	<p>Addition of Liberalization, Globalization and Demonitisation.</p> <p>Addition of Planning Commission and omitted current five year plan.</p> <p>Addition of UNCTAD and omitted international trading environment.</p>

बी,कॉम. भाग – एक
अनिवार्य

समूह-3 प्रश्नपत्र – 1 – व्यावसायिक पर्यावरण

वर्तमान पाठ्यक्रम	प्रस्तावित पाठ्यक्रम
<p>इकाई – 1 भारतीय व्यावसायिक पर्यावरण : अवधारणा, संघटक व महत्व। आर्थिक प्रवृत्तियाँ : आय, बचत एवं विनियोग, औद्योगिक प्रवृत्तियाँ; व्यापार एवं भुगतान सन्तुलन, मुद्रा , वित्त तथा कीमत।</p> <p>इकाई – 2 विकास की समस्याएँ : बेरोजगारी ,निर्धनता एवं क्षेत्रीय असन्तुलन, सामाजिक अन्याय, मुद्रास्फीति, समान्तर अर्थव्यवस्था , औद्योगिक रुग्णता।</p> <p>इकाई – 3 शासन की भूमिका : मौद्रिक एवं राजकोषीय नीति, औद्योगिक नीति, औद्योगिक लाइसेंसिंग नीति ,निजीकरण , अवमूल्यन, निर्यात-आयात नीति, विदेशी विनियोग का नियमन।</p> <p>इकाई – 4 पुर्व योजनाओं की समीक्षा , चालू पंचवर्षीय योजना : मुख्य रणनीति, संसाधनों आबंटन।</p> <p>इकाई – 5 अंतराष्ट्रीय पर्यावरण : अंतराष्ट्रीय व्यापारिक पर्यावरण , विश्व व्यापार की प्रवृत्ति एवं विकासशील देशों की समस्याएँ, विदेशी व्यापार एवं आर्थिक विकास , अंतराष्ट्रीय आर्थिक समूह- अंतराष्ट्रीय अर्थव्यवस्था की संस्थाये, विश्व व्यापार संगठन , व्यापार एवं प्रशुल्क एवं व्यापार संबंधि सामान्य समझौता (गैट) , विश्व बैंक , अंतराष्ट्रीय मुद्रा कोष , अंतराष्ट्रीय पुनर्निर्माण एवं विकास बैंक, प्रति व्यापार , एफ. डी. आई।</p>	<p>इकाई – 1 व्यावसायिक पर्यावरण : अवधारणा, संघटक व महत्व, आर्थिक प्रवृत्तियाँ : आय, बचत एवं विनियोग; व्यापार एवं भुगतान सन्तुलन, मुद्रा एवं वित्त।</p> <p>इकाई – 2 विकास की समस्याएँ : बेरोजगारी ,निर्धनता एवं क्षेत्रीय असन्तुलन, सामाजिक अन्याय, मुद्रास्फीति, समान्तर अर्थव्यवस्था , औद्योगिक रुग्णता।</p> <p>इकाई – 3 शासन की भूमिका (वर्तमान परिदृश्य में) : मौद्रिक एवं राजकोषीय नीति, औद्योगिक नीति, औद्योगिक लाइसेंसिंग नीति ,निजीकरण , उदारीकरण, भूमण्डलीकरण, अवमूल्यन, विमुद्रिकरण निर्यात-आयात नीति, विदेशी विनियोग का नियमन।</p> <p>इकाई – 4 भारत में आर्थिक नियोजन : आवश्यकता , उद्देश्य एवं व्यूहरचना, पुर्व पंचवर्षीय योजनाओं की समीक्षा , चालू पंचवर्षीय योजना। विदेशी विनिमय प्रबंध अधिनियम 2000 : अवधारणा एवं मुख्य प्रवधान।</p> <p>इकाई – 5 अंतराष्ट्रीय पर्यावरण : विश्व व्यापार की प्रवृत्ति एवं विकासशील देशों की समस्याएँ, विदेशी व्यापार एवं आर्थिक विकास , अंतराष्ट्रीय आर्थिक समूह- प्रशुल्क एवं व्यापार संबंधि सामान्य समझौता (गैट) , विश्व व्यापार संगठन, विश्व बैंक , अंतराष्ट्रीय मुद्रा कोष ,प्रत्यक्ष विदेशी निवेश, संयुक्त राष्ट्र व्यापार एवं विकास संगठन (अंकटाड)।</p>

Suggested Readings:

1. Agarwal A. N. : Indian Economy, Vikas Publishing House Delhi. (English medium)
2. Khan Farooq A : Business and Society; S. Chand , Delhi. (English medium)
3. Dutt R. and Sundharam K. Pm. ; Indian Economy; S. Chand , Delhi. (English medium)
4. Misra S.K. and Puri V.K. : Indian Economy; Himalaya Publishing House, New Delhi. (English medium)
5. Dr. V.C. Sinha; Business Environment; SBPD Publishing House, Agra . (Both Hindi and English medium)
6. Dr. J. K. Jain; Business Environment; Madhya Pradesh hindi Granth Academy: Bhopal. (Hindi medium)
7. Gupta & Pathak; Business Environment; Ram Prasad & Sons, Raipur. (Hindi medium)
8. S.K. Singh; Business Environment; SBPD Publishing House, Agra . (Both Hindi and English medium)

B.Com Part- I Compulsory

Group – III – Business Economics

Paper – II– BUSINESS ECONOMICS

OBJECTIVE – To acquaint the students with the principles of Business Economics as are applicable in business.

Present Syllabus	Proposed Syllabus	Remark
<p>UNIT –I Introduction : Basic problems of an economy ; Working of price mechanism. Elasticity of Demand ; Concept and measurement of elasticity of demand ; Price, income and cross elasticity ; Average revenue , marginal revenue, and elasticity of demand; Determinates of elasticity of demand; Importance of elasticity of demand.</p> <p>UNIT –II Production Function ; Law of variable proportions ; Iso-quants; Expansion path; Returns to scale; Internal and external economies and diseconomies.</p> <p>UNIT –III Theory of Costs : Short-run and long-run cost curves – traditional and modern approaches. Market Structures 1 Market structures and business decisions ; Objectives of a business firm. (a) Perfect Competition ; Profit maximization and equilibrium of firm and industry; Short-run and long-run supply curves; Price and output determination, Practical applications. (b) Monopoly : Determination of price under monopoly ; Equilibrium of a firm ; Comparison between perfect competition and monopoly; Multi-plant monopoly ; Price Discrimination. Practical applications.</p>	<p>UNIT –I Introduction : Definition ,Nature and Scope of Economics, Difference Between Micro and Macro Economics, Method of Economic Study : Inductive and Deductive Methods. Basic problem of Economy, Working of Price Mechanism. Utility Analysis: Measurements of Utility, Law of Diminishing Marginal Utility, Law of Equi-Marginal Utility.</p> <p>UNIT-II Law of demand: Meaning and Definitions, Effecting Factors, Types ; Exception of Law of demand. Elasticity of Demand : Concept, Definitions, Importance, Types and Measurement of Elasticity of Demand, Factors affecting the Elasticity of Demand.</p> <p>UNIT –III Production : Factors of Production ,their characteristics and importance. Production Functions : Law of Variable Proportions, Return to scale and Equal Product Curve Analysis. Internal and external economies and diseconomies.</p>	<p>Addition of Introduction of Economics, Method of Economic study & Utility Analysis.</p> <p>Addition of Law of Demand.</p> <p>Addition of Factor of Production.</p>

Present Syllabus	Proposed Syllabus	Remark
<p>UNIT –IV Market Structure</p> <p>(a) Monopolistic competition : Meaning and Characteristics; Price and output determination under monopolistic competition ; Product differentiations; Selling costs; Comparison with perfect competition; Excess capacity under monopolistic competition.</p> <p>(b) Oligopoly : Characteristics, indeterminate pricing and output Classical models of oligopoly ; Price leadership ; Collusive oligopoly.</p> <p>UNIT –V Factor Pricing-1 : Marginal Productivity theory and demand for factors; Nature of supply of factor inputs; Determination of wage rates under perfect competition and monopoly; Exploitation of labour. Factor pricing-II : Rent concept, Ricardian and modern theories of Rent quasirent. Interests concept and theories of interest ; Profit-nature , concept and theories of profit.</p>	<p>UNIT –IV Market Structure – Concept , Characteristics, Classification. Determination of Price under condition of Perfect Competition, Imperfect Competition and Monopoly, Monopolistic Competition, Oligopoly and Duopoly.</p> <p>UNIT –V Theories of distribution, Marginal Productivity theory of distribution, Concept and theories of Wages, Rent, Interest & Profit.</p>	

बी,कॉम. भाग – एक
अनिवार्य

समूह-3 प्रश्नपत्र – 2 – व्यावसायिक अर्थशास्त्र

वर्तमान पाठ्यक्रम	प्रस्तावित पाठ्यक्रम
<p>इकाई – 1 परिचय : अर्थशास्त्र की मुख्य समस्याएं , कीमत संयंत्र के कार्य, मांग की लोच , मांग की लोच मापने की विधियां एवं अवधारणाएं : कीमत , आय तथा आडी लोच, औसत आगम, सीमान्त आगम एवं मांग की लोच , मांग की लोच का निर्धारण तथा मांग की लोच का महत्व।</p> <p>इकाई – 2 उत्पादन फलन, परिवर्तन अनुपात का नियम , समोत्पाद , विस्तार पथ, पैमाने के प्रतिफल , आंतरिक एवं बाह्य मितव्ययिता एवं अपमितव्ययिता।</p> <p>इकाई – 3 लागत अवधारणाएं , अल्पकालीन एवं दीर्घकालीन लागत वक्र, परम्परागत एवं आधुनिक विचारधारा। बाजार संरचना तथा व्यावसायिक निर्णयन, व्यावसायिक फर्म के उद्देश्य। (अ) पूर्ण प्रतियोगिता , लाभ अधिकतमीकरण तथा फर्म का साम्य , औद्योगिक अल्पकालीन एवं दीर्घकालीन पूर्ति वक्र, कीमत एवं उत्पाद निर्धारण। (ब) एकाधिकार : एकाधिकार में मूल्य निर्धारण , फर्म का साम्य , पूर्ण प्रतियोगिता एवं एकाधिकार में अन्तर ,एकाधिकार के अंतर्गत कीमत विभेद।</p> <p>इकाई – 4 बाजार संरचना: (अ)एकाधिकृत प्रतियोगिता : आशय एवं विशेषताएं , कीमत एवं उत्पाद निर्धारण , उत्पाद विभेद , विक्रय लागत, पूर्ण प्रतिस्पर्धा से तुलना , अतिरिक्त क्षमता सिद्धांत। (ब) अल्पाधिकार : विशेषताएं , कीमत एवं उत्पाद निर्धारण , परंपरागत मॉडल, कीमत नेतृत्व , कपटपूर्ण अल्पाधिकार।</p>	<p>इकाई – 1 परिचय: अर्थशास्त्र की परिभाषा, प्रकृति एवं क्षेत्र, व्यष्टि एवं समष्टि अर्थशास्त्र में भेद, आर्थिक अध्ययन की प्रणालियां : निगमन एवं आगमन। अर्थव्यवस्था की मूल समस्याएं, कीमत संयंत्र का कार्यकरण। उपयोगिता विश्लेषण – उपयोगिता की माप, सीमांत उपयोगिता ह्रास नियम , समसीमांत उपयोगिता नियम।</p> <p>इकाई – 2 मांग का नियम : अर्थ, परिभाषा , प्रभावित करने वाले घटक, मांग के रूप, मांग के नियम के अपवाद। मांग की लोच : अवधारणा, परिभाषा, महत्व, प्रकार एवं मापन की विधियां, मांग की लोच को प्रभावित करने वाले घटक।</p> <p>इकाई – 3 उत्पादन : उत्पादन के कारक ,उनकी विशेषताएं एवं महत्व। उत्पादन फलन : परिवर्तनशील अनुपातों का नियम , पैमाने का प्रतिफल ,समोत्पाद वक्र विश्लेषण। आंतरिक एवं बाह्य मितव्ययिता एवं अपमितव्ययिता।</p> <p>इकाई – 4 बाजार संरचना: अवधारणा, परिभाषाएं, विशेषताएं एवं वर्गीकरण। पूर्ण प्रतियोगिता, अपूर्ण प्रतियोगिता, एकाधिकारी प्रतियोगिता, एकाधिकृत प्रतियोगिता ,अल्पाधिकार एवं द्वयाधिकार में कीमत निर्धारण।</p> <p>इकाई – 5</p>

वर्तमान पाठ्यक्रम	प्रस्तावित पाठ्यक्रम
<p>इकाई – 5 कीमत कारक– I सीमान्त उत्पादकता सिद्धांत तथा मांग कारक, पूर्ति की प्रकृति, पूर्ण प्रतियोगिता एवं एकाधिकार में मजदूरी दर का निर्धारण ,श्रम का शोषण। कीमत कारक – II – लगान अवधारणा , रिकार्डों का लगान सिद्धांत तथा लगान का आधुनिक सिद्धांत , ब्याज अवधारणा तथा ब्याज का सिद्धांत लाभ की प्रकृति , अवधारणा तथा लाभ के सिद्धांत।</p>	<p>वितरण का सिद्धांत : सीमान्त उत्पादकता का सिद्धांत , मजदूरी, लगान, ब्याज एवं लाभ की अवधारणा एवं सिद्धांत ।</p>

Suggested Readings:

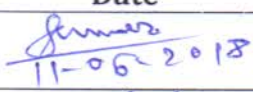


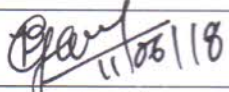
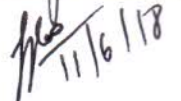
1. John P. Gould, Jr. and Edward P. Lazear: Micro economic theory; All India Traveller, Delhi. (English medium)
2. Koutsoyianni A. : Modern Microeconomics: Macmillan, New Delhi. (English medium)
3. Khan Farooq A : Business and Society; S. Chand , Delhi. (English medium)
4. Misra S.K. and Puri V.K. : Indian Economy; Himalaya Publishing House, New Delhi. (English medium)
5. M. L. Jhingan : Micro Economics, Vrinda publication, Delhi. (Both English and Hindi medium)
6. Dr. J. K. Jain; Business Economics; Madhya Pradesh hindi Granth Academy: Bhopal. (Hindi medium)
7. Dr. V.C. Sinha; Business Economics; SBPD Publishing House, Agra. (Both English and Hindi medium)
8. Dr. Jai Prakash Misra; Business Economics; Sahitya Bhawan Publication, Agra. (Hindi medium)

प्रपत्र

विषय/संकाय/प्रश्न-पत्र का नाम- **B.Com.(Computer Application)**

क्रमांक	कक्षा का नाम	वर्तमान पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम का औचित्य
1.	1 st Year	COMPUTER FUNDAMENTALS AND OFFICE AUTOMATION	COMPUTER FUNDAMENTAL	Updation Required
2.	1 st Year	COMPUTERIZED FINANCIAL ACCOUNTING	PC SOFTWARE AND MULTIMEDIA	Updation Required
3.	1 st Year	PRACTICAL	PRACTICAL	Updation Required
4.	2 nd Year	INTERNET APPLICATION & E-COMMERCE	INTERNET APPLICATION & E-COMMERCE	No Change
5.	2 nd Year	RELATIONAL DATABASE MANAGEMENT SYSTEM	RELATIONAL DATABASE MANAGEMENT SYSTEM	No Change
6.	2 nd Year	PRACTICAL	PRACTICAL	No Change
7.	3 rd Year	PROGRAMMING IN VISUAL BASIC	PROGRAMMING IN VISUAL BASIC	No Change
8.	3 rd Year	SYSTEM ANALYSIS, DESING & MIS	SYSTEM ANALYSIS, DESING & MIS	No Change
9.	3 rd Year	PRACTICAL	PRACTICAL	No Change

केन्द्रीय अध्ययन मंडल के अध्यक्ष एवं सदस्यों का हस्ताक्षर

S.N.	Name	Designation/University/College	Signature with Date
1.	Dr. Sanjay Kumar	Head, S.o.S. in Computer Science & I.T., Pt. R.S. University, Raipur	 11-06-2018
2.	Mr. Hari Shankar Prasad Tonde	Head, Dept. of Computer Science, Sarguja University, Ambikapur	 11-06-18
3.	Dr. Anuj Kumar Dwivedi	Head, Dept. of Computer Science, Govt. V.B.S.D. Girls College, Jashpur Nagar, Jashpur	 11/6/2018
4.	Mr. L.K. Gavel	Head, Dept. of Computer Science, Govt. G.S.G. P.G. College Balod	 11/06/18
5.	Dr. J. Durga Prasad Rao	Head, Dept. of Computer Science, Shri Sankracharya Mahavidyalaya, Bhilai	 11/6/18

B. COM. (COMPUTER APPLICATION)
PAPER I
COMPUTER FUNDAMENTAL

Max Marks: 50

NOTE: - The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice.

UNIT - I Introduction to Computers

Computer system: characteristics and capabilities. Computer Hardware and Software: Block Diagram of a Computer, Different Data Processing: Data, Data Processing System, Storing Data, Processing Data. Types of Computers: Analogue, Digital, Hybrid, General and Special Purpose Computers. Generations of Computers. Computer Systems: Micros, Minis and Main-frames. Limitations of Micro Computer. Number systems: Decimal Number system, Binary number system, Octal and Hexadecimal number system, 1's and 2's complement. Codes: ASCII, EBCDI Codes, Gray code and BCD. Logic Gates: AND, OR, NOT GATES and their Truth tables, NOR, NAND and XOR gates.

UNIT - II Computer Peripherals

Introduction to Input Devices: Categorizing Input Hardware, Keyboard, Direct Entry - Card Readers, Scanning Devices - O.M.R., Character Readers, Thumb Scanner, MICR, Smart Cards, Voice Input Devices, Pointing Devices - Mouse, Light Pen, Touch Screen. **Computer Output:** Output Fundamentals, Hardcopy Output Devices, Impact Printers, Non-Impact Printers, Plotters, Computer output Microfilm/Microfiche(COM) systems, Softcopy Output Devices, Cathode Ray Tube, Flat Screen Technologies, Projectors, Speakers.

UNIT - III Basic Components and Storage

Central Processing Unit: The Microprocessor, control unit, A.L.U., Registers, Buses, Main Memory, Main Memory (RAM) for microcomputers, Read Only Memory(ROM). **Storage Devices:** Storage Fundamentals, Primary and Secondary Storage, Data Storage and Retrieval Methods - Sequential, Direct and Indexed Sequential, Tape Storage and Retrieval Methods Tape storage Devices, characteristics and limitations, Direct access Storage and Microcomputers - Hard Disks, Disk Cartridges, Direct Access Storage Devices for large Computer systems, Mass storage systems and Optical Disks, CD ROM.

UNIT - IV Computer Software and Languages

System Software: System software Vs. Application Software, Types of System Software, Introduction and Types of Operating Systems. Boot Loader, Diagnostic Programs, BIOS, Utility Programs. **Application Software:** Microcomputer Software, Interacting with the System, Trends in PC software, Types of Application Software, Difference between Program and Packages. **Computer Languages:** Definition, Generations of computer languages, Types of Languages, **Language Processors:** Assembler, Interpreter, Compiler, Linker and Loader. Programming constructs, Algorithm and flowchart.

UNIT - V Introduction to MS DOS and Windows

Introduction to DOS: History and versions of DOS. Fundamentals of DOS: Physical Structure of the Disk, Compatibility of drives, Disks and DOS versions, Preparing Disks for use, Device Names. Getting Started with DOS: Booting Process (DOS, Windows, Unix), System Files and Command.com, Internal DOS Files and Directories, Elementary External DOS Commands, Creating a Batch Files, Additional Commands.

Microsoft Windows: Operating system-Definition and functions, basics of Windows. Basic components of windows, icons, types of icons, taskbar, activating windows, using desktop, title bar, running applications, exploring computer, managing files and folders, copying and moving files and folders. Control panel-display properties, adding and removing software and hardware, setting date and time, screen saver and appearance.

Using windows accessories.

TEXT BOOKS:

1. Introduction to Information Technology, V. Rajaraman, PHI, Second Edition.
2. Computer Fundamentals, P. K. Sinha, BPB Publications, Sixth Edition.
3. Fundamental of Information Technology, Chetan Shrivastava, Kalyani Publishers
4. Computers Today, Suresh K Basandra, Galgotia Publications.

Suresh
11-06-2018
(P.S. Bujday Name)

Anurag
11/6/18
(Dr. A.K. Dhaivedi)

Paul
4/06/18
(C.L.K. Gavel)

JMP
11-06-18
Hari Shankar Prasad Tunde

Prasanna
11/6/18
(Dr. J. Durga
Pd Rao)

B. COM. (COMPUTER APPLICATION)
PAPER I
COMPUTER FUNDAMENTAL

Max Marks: 50

NOTE: - The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice.

UNIT - I Introduction to Computers

Computer system: characteristics and capabilities. Computer Hardware and Software: Block Diagram of a Computer, Different Data Processing: Data, Data Processing System, Storing Data, Processing Data. Types of Computers: Analogue, Digital, Hybrid, General and Special Purpose Computers. Generations of Computers. Computer Systems: Micros, Minis and Main-frames. Limitations of Micro Computer. Number systems: Decimal Number system, Binary number system, Octal and Hexadecimal number system, 1's and 2's complement. Codes: ASCII, EBCDI Codes, Gray code and BCD. Logic Gates: AND, OR, NOT GATES and their Truth tables, NOR, NAND and XOR gates.

UNIT - II Computer Peripherals

Introduction to Input Devices: Categorizing Input Hardware, Keyboard, Direct Entry - Card Readers, Scanning Devices - O.M.R., Character Readers, Thumb Scanner, MICR, Smart Cards, Voice Input Devices, Pointing Devices - Mouse, Light Pen, Touch Screen. **Computer Output:** Output Fundamentals, Hardcopy Output Devices, Impact Printers, Non-Impact Printers, Plotters, Computer output Microfilm/Microfiche(COM) systems, Softcopy Output Devices, Cathode Ray Tube, Flat Screen Technologies, Projectors, Speakers.

UNIT - III Basic Components and Storage

Central Processing Unit: The Microprocessor, control unit, A.L.U., Registers, Buses, Main Memory, Main Memory (RAM) for microcomputers, Read Only Memory(ROM). **Storage Devices:** Storage Fundamentals, Primary and Secondary Storage, Data Storage and Retrieval Methods - Sequential, Direct and Indexed Sequential, Tape Storage and Retrieval Methods Tape storage Devices, characteristics and limitations, Direct access Storage and Microcomputers - Hard Disks, Disk Cartridges, Direct Access Storage Devices for large Computer systems, Mass storage systems and Optical Disks, CD ROM.

UNIT - IV Computer Software and Languages

System Software: System software Vs. Application Software, Types of System Software, Introduction and Types of Operating Systems. Boot Loader, Diagnostic Programs, BIOS, Utility Programs. **Application Software:** Microcomputer Software, Interacting with the System, Trends in PC software, Types of Application Software, Difference between Program and Packages. **Computer Languages:** Definition, Generations of computer languages, Types of Languages, **Language Processors:** Assembler, Interpreter, Compiler, Linker and Loader. Programming constructs, Algorithm and flowchart.

UNIT - V Introduction to MS DOS and Windows

Introduction to DOS: History and versions of DOS. Fundamentals of DOS: Physical Structure of the Disk, Compatibility of drives, Disks and DOS versions, Preparing Disks for use, Device Names. Getting Started with DOS: Booting Process (DOS, Windows, Unix), System Files and Command.com, Internal DOS Files and Directories, Elementary External DOS Commands, Creating a Batch Files, Additional Commands.

Microsoft Windows: Operating system-Definition and functions, basics of Windows. Basic components of windows, icons, types of icons, taskbar, activating windows, using desktop, title bar, running applications, exploring computer, managing files and folders, copying and moving files and folders. Control panel-display properties, adding and removing software and hardware, setting date and time, screen saver and appearance. Using windows accessories.

TEXT BOOKS:

1. Introduction to Information Technology, V. Rajaraman, PHI, Second Edition.
2. Computer Fundamentals, P. K. Sinha, BPB Publications, Sixth Edition.
3. Fundamental of Information Technology, Chetan Shrivastava, Kalyani Publishers
4. Computers Today, Suresh K Basandra, Galgotia Publications.

Suresh
11-06-2018
(Dr. Suresh Kumar)

Anuj
11/06/18
(Dr. A.K. Deivedi)

Ravi
4/06/18
(C.L.K. Gavel)

JMP
11-06-18
Hari Shankar Purohit

Dr. J. Datta
11/06/18
(Dr. J. Datta)

B. COM. (COMPUTER APPLICATION)
PAPER II
PC SOFTWARE AND MULTIMEDIA

Max Marks: 50

NOTE: - The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice.

UNIT - I Using Office MS-Word

Introduction to word processing software and it's features, Creating new document, Saving documents, Opening and printing documents. **Home Tab:** Setting fonts, Paragraph settings, Various styles (Normal, No spacing, Heading1, Heading2, Title, Strong), Find & replace, Format painter, Copy paste and paste special. **Insert Tab:** Pages, Tables, pictures, clipart, shapes, header & footer, word art, equation and symbols. **Page Layout Tab:** Page setup, page Background, Paragraph (indent and spacing). **Mailing Tab:** Create envelopes and Labels, Mail merge. **Review Tab:** Spelling and grammar check, New comment, Protect document, **View Tab:** Document views, Zoom, Window (New window, Split, Switch window).

UNIT - II Working with MS-Excel

Introducing Excel, Use of excel sheet, Creating new sheet, Saving, Opening, and printing workbook. **Home Tab:** Font, Alignment, Number, Styles and cells and editing, Conditional Formatting. **Insert Tab:** Table, Charts (column chart, Pie chart, Bar chart, Line chart) and Texts (header & footer, word art, signature line). **Page Layout Tab :** Page setup options, Scale to fit(width, height, scale). **Formulas Tab :** Autosum (sum, average, min, max), logical(IF, and ,or ,not ,true, false), Math & trig (sin, cos, tan, ceiling, floor, fact, mod, log), watch window. **Data Tab :** Get external data from MS Access, Sort and filter options , Data validation, Group and ungroup. **Review Tab:** Protect sheet, Protect workbook, Share workbook. **View Tab:** Page breaks, Page layout, Freezing panes, Split and hide.

UNIT - III Working with MS-PowerPoint

Introducing power point, Use of power point presentation, Creating new slides saving, Opening and printing. **Home Tab:** New slide, Layout, Reset, Delete, Setting text direction, Align text, Convert to smart art, Drawing options. **Insert Tab:** Table, picture, clipart, photo album, smart art, shapes and chart, movie and sound, hyperlink and action, text box , word art, object. **Design Tab:** Page setup options, slide orientation, applying various themes, selecting background style and formatting it. **Animations Tab:** Custom animation for entrance, exit and emphasis, applying slide transition, setting transition speed and sound, animation on rehears timing. **Slide show & View Tab:** Start slid show options, setup options. **View tab:** Presentation views, colours and window option.

UNIT - IV Working with MS-Access

Front end and back end of application, Introduction to dbms, features of dbms, Creating blank databases, Saving it in accdb format. Defining data types in ms access. **Home Tab:** Datasheet view, design view, pivot chart view, pivot table view, sort and filter options. **Create Tab :** creating tables, creating reports, query wizard. **External Data Tab :** importing data from access and excel sheet, exporting data to excel and ms word. **Datasheet Tab:** Relationships, fields and columns options, Data type and formatting options.

UNIT - V Animations and Graphics

Basic Concept of 2D/3D Animation, Principle of animation, application of Multimedia, Hardware & software resources requirement for animation, introduction of various file formats (.mpeg, .gif, .jpeg, .mp4, .tif, .flv). **Creating a new movie in flash :**Get set Up, Input Text, Animate Text, drawing and painting with tools, brush,create basic shapes like Oval, Rectangle& Polystar Tools, tools working with object & filing the object, Transformation, object properties dialog box, creating layers motion tweccing, shape tweccing , mask layers, basic action scripts, importing sound through Flash.

TEXT BOOKS:

1. Microsoft Office 2007 fundamentals, L Story, D Walls.
2. MS Office, S. S. Shrivastava, Firewall Media.
3. Office 2000 made easy, Alan Neibauer, Tata McGraw Hill.
4. FLASHMX Bible, Robert Reinhart.
5. Sams Teach Yourself Macromedia Flash 8 in 24 Hours, Phillip Kerman.
6. How to do everything with Macromedia, Bonnie Blake, Doug Sahlin.
7. Multimedia Making it works, Tay Vaughan, Tata McGraw Hills

Smruti
11-06-18
(Dr. Jayraj Kumar)

Anish
11/06/18
(Dr. A.K. Privedi)

Gaury
11/06/18
(C.K. Gaury)

JMP
11-06-18
Hari Shankar Prasad Panda
(Dr. J. Prasad)

Practical

- At least 20 Practical based on Syllabus of Paper-I and Paper-II.

Srinivas
11-06-2018
Dr. Jayjay Kumar

Anuj
11/6/2018
(Dr. A.K. Dwivedi)

Praveen
11/06/18
(L.K. Savel)

Praveen
11/6/18
(Dr. J. Dnyaneshwar)

Harishankar Prasad Tandel
11-06-18
Harishankar Prasad Tandel

**SYLLABUS
B.COM. PART-II**

GROUPING OF SUBJECTS AND SCHEME OF EXAMINATION

Subject		Max.	Min.
A. Foundation Course			
I. Hindi Language		75	26
II. English Language		75	26
B. Three Compulsory Groups			
Group-I			
I. Corporate Accounting	75 }	150	50
II. Company Law	75 }		
Group-II			
I. Cost Accounting	75 }	150	50
II. Principles of Bus. Management	75 }		
Group-III			
I. Business Statistics	75 }	150	50
II. Fundamental of Entrepreneurship	75 }		

B.Com.II year

C O M P U L S O R Y

Group - I PAPER - I (CORPORATE ACCOUNTING)

OBJECTIVE

This course enable the students to develop awareness about corporate accounting in conformity with the provisions of companies Act.

(As per company act 2013)

Current Syllabus	Proposed Syllabus	Remark
UNIT-I Issue, Forfeiture, and Re-issue of Shares : Redemption of preference shares; Issue and redemption of debentures.	UNIT-I Issue, Forfeiture, and Re-issue of Shares : Redemption of preference shares; Issue and redemption of debentures.	
UNIT-II Final Accounts; Excluding computation of managerial remuneration, and disposal of profit, Liquidation of Company.	UNIT-II Final Accounts (as per company act 2013) Liquidation of Company.	Ommission of managerial remuneration, and disposal of profit
UNIT-III Valuation of Goodwill and Shares.	UNIT-III Valuation of Goodwill and Shares.	
UNIT-IV Accounting for Amalgamation of Companies as per Indian Accounting Standard 14; Accounting for internal reconstruction - excluding intercompany holdings and re-construction schemes.	UNIT-IV Accounting for Amalgamation of Companies as per Indian Accounting Standard 14; Accounting for internal reconstruction - excluding intercompany holdings and re-construction schemes.	
UNIT-V Consolidated Balance Sheet of holding companies with one subsidiary only. <u>Final Account of Banking Companies.</u>	UNIT-V Consolidated Balance Sheet of holding companies with one subsidiary only.	Ommission Final Account of Banking Companies.

SUGGESTED READINGS :

1. Dr. S.M. Shukla, Sahitya Bhawan Agra.
2. Dr. Mangal Mehta & Agrawal Published - Indore.
3. Dr. Karim Khanuja - Published - Agra.
4. Gupta R.L., Radhaswamy M; Company Accounts; Sultan Chand & Sons, New Delhi.

Group - II PAPER - I (COST ACCOUNT)

OBJECTIVE

This course exposes the students to the basic concepts and the tools used in cost accounting.

Current Syllabus	Proposed Syllabus	Remark
<p>UNIT-I Introduction : Nature and scope of cost accounting ; Cost concepts and classification; Methods and techniques; Installation of costing system; Concept of cost audit. Accounting for Material : Material Control; Concept and techniques; Pricing of material issues; Treatment of material losses.</p>	<p>UNIT-I Introduction : Nature and scope of cost accounting ; Cost concepts and classification; Methods and techniques; Installation of costing system; Concept of cost audit. Accounting for Material : Material Control; Concept and techniques; Pricing of material issues; Treatment of material losses.</p>	
<p>UNIT-II Accounting for Labour : Labour cost control procedure; Labour turnover; Idle time and overtime; Methods of wage payment - time and piece rates; Incentive schemes. Accounting for overheads; Classification and departmentalization; Absorption of overheads; Determination of overhead rates; Under and over absorption, and its treatment.</p>	<p>UNIT-II Accounting for Labour : Labour cost control procedure; Labour turnover; Idle time and overtime; Methods of wage payment - time and piece rates; Incentive schemes. Accounting for overheads; Classification and departmentalization; Absorption of overheads; Determination of overhead rates; Under and over absorption, and its treatment.</p>	
<p>UNIT-III Cost Ascertainment : Unit costing; Job, batch and contract costing.</p>	<p>UNIT-III Cost Ascertainment : Unit costing; Job, batch and contract costing.</p>	
<p>UNIT-IV Operating costing; Process Costing - excluding inter - process profits, and joint and by - products.</p>	<p>UNIT-IV Operating costing; Process Costing - excluding inter - process profits, and joint and by - products.</p>	
<p>UNIT-V Cost Records : Intergal and non - integral system; Reconciliation of cost and financial accounts; Break Even Point.</p>	<p>UNIT-V Cost Records : Intergal and non - integral system; Reconciliation of cost and financial accounts; Break Even Point.</p>	

SUGGESTED READINGS :

1. M.L. Agrawal : Sahitya Bhawan Agra.
2. Maheshwari S.N. : Advanced Problems and Solutions in Cost Accounting; Sultan Chand, New Delhi.
3. Arora M.N. : Cost Accounting - Principles and Practice; Vikas, New Delhi.
4. Jain S.P. and Narang K.L. : Cost Accounting; Kalyani New Delhi.

Group - II - PAPER - II
PRINCIPLES OF BUSINESS MANAGEMENT

OBJECTIVE

This Course familiarizes the students with the basics of principles of management.

Current Syllabus	Proposed Syllabus	Remark
UNIT-I Introduction : Concept, nature, process, and significance of management; management roles (Mintzberg); An overview of functional areas of management; Development management thought; Classical and neo-classical systems; Concept approaches.	UNIT-I Introduction : Concept, nature, process, and significance of management; management roles (Mintzberg); An overview of functional areas of management; Development management thought; Classical and neo-classical systems; Concept approaches.	
UNIT-II Planning : Concept, process and types. Decision making - concept and Bounded rationality; Management by objectives; Corporate planning; Environment analysis and diagnosis; Strategy formulation.	UNIT-II Planning : Concept, process and types. Decision making - concept and Bounded rationality; Management by objectives; Corporate planning; Environment analysis and diagnosis; Strategy formulation.	
UNIT-III Organizing : Concept, nature, process and significance; Authority and resident relationships; Centralization and decentralization; Departmentation; Organization structure - forms and contingency factors.	UNIT-III Organizing : Concept, nature, process and significance; Authority and resident relationships; Centralization and decentralization; Departmentation; Organization structure - forms and contingency factors.	
UNIT-IV Motivating and Leading People at work : Motivation - concept; Theories Herzberg, McGregor, and Ouchi; Financial and non-financial incentives. Leadership - concept and leadership styles; Leadership theories (Tannenb Schmidt.); Likert's System Management; Communication - nature, process, networks, and barriers, Effective Communication.	UNIT-IV Motivating and Leading People at work : Motivation - concept; Theories Herzberg, McGregor, and Ouchi; Financial and non-financial incentives. Leadership - concept and leadership styles; Leadership theories (Tannenb Schmidt.); Likert's System Management; Communication - nature, process, networks, and barriers, Effective Communication.	
UNIT-V Managerial Control : Concept and process; Effective control system; Technical control - traditional and modern. Management of Change : Concept, nature, and process of planned Resistance to change; Emerging horizons of management in a environment.	UNIT-V Managerial Control : Concept and process; Effective control system; Technical control - traditional and modern. Management of Change : Concept, nature, and process of planned Resistance to change; Emerging horizons of management in a environment.	

SUGGESTED READINGS :

1. Dr. R.C. Agrawal, Agra.
2. Dr. S.C. Saxena, Agra.
3. Wehrich and Koontz, et al : Essentials of Management; Tata McGraw Hill, New Delhi.

Group - I - PAPER - II
COMPANY LAW

OBJECTIVE

This objective of this course is to provide basic knowledge of the provisions Companies Act. 2013, along with relevant case law.

Current Syllabus	Proposed Syllabus	Remark
UNIT-I Corporate personalities; Kinds of Companies, Nature & Scope, promotion on and incorporation of companies.	UNIT-I Corporate personalities; Kinds of Companies, Nature & Scope, promotion on and incorporation of companies.	
UNIT-II Memorandum of Association; Articles of Association; Prospectus, Shares; share capital - transfer and transmission.	UNIT-II Memorandum of Association; Articles of Association; Prospectus, Shares; share capital - transfer and transmission.	
UNIT-III Capital management - borrowing powers, mortgages and charges, debentures. Directors - Managing Director, whole time director, Appointment, Remuneration, and duties.	UNIT-III Capital management - borrowing powers, mortgages and charges, debentures. Directors - Managing Director, whole time director, Appointment, Remuneration, and duties.	
UNIT-IV Company meetings - kinds, Notice, quorum, voting, proxy, resolutions, minutes.	UNIT-IV Company meetings - kinds, Notice, quorum, voting, proxy, resolutions, minutes.	
UNIT-V majority powers and minority rights; Prevention of oppression and mismanagement. Winding up - kinds and conduct.	UNIT-V majority powers and minority rights; Prevention of oppression and mismanagement. Winding up - kinds and conduct.	

SUGGESTED READINGS :

1. Singh Avtar : Company Law; Eastern Book Co., Lucknow.
2. Dr. S.M. Shukla, Shahitya Bhawan Agra.
3. Dr. R.C. Agrawal, Shahitya Bhawan Agra.
4. Kapoor N.D. : Company Law - Incorporating the Provisions of the companies Amendment Act, 2013 Chand & Sons, New Delhi.

Group - III - PAPER - I

BUSINESS STATISTICS

OBJECTIVE

It enable the students to gain understanding of statistical techniques as are applicable to business.

Current Syllabus	Proposed Syllabus	Remark
UNIT-I Introduction : Statistics as a subject; Descriptive Statistics - compared to Inferential Statistics; Types of data; Summation operation; Rules of Sigma E operations, Analysis of University Data; Construction of a frequency distribution; Concept of central tendency.	UNIT-I Introduction : Statistics as a subject; Descriptive Statistics - compared to Inferential Statistics; Types of data; Summation operation; Rules of Sigma E operations, Analysis of University Data; Construction of a frequency distribution; Concept of central tendency.	
UNIT-II Dispersion - and their measures; Partition values; Moments; Skewness and measures; Kurtosis and measures.	UNIT-II Dispersion - and their measures; Partition values; Skewness and measures;	Omission of movements & Kurtosis
UNIT-III Analysis of Bivariate Data : Linear regression two variables and correlation.	UNIT-III Analysis of Bivariate Data : Linear regression two variables and correlation.	
UNIT-IV Index Number; Meaning, types, and uses; Methods of Constructing price and quantity indices (simple and aggregate); Tests of adequacy; Chain - base index numbers; Base shifting, splicing and deflating; Problems in constructing index numbers; Consumer price index. Analysis of Time Series : Cause of Variation in time series data; Components of a time series; Decomposition - Additive and Multiplicative models; Determination of trend - Moving Averages Method and method of least squares (including linear, second degree, parabolic, and exponential trend); Computation of seasonal indices by simple averages, ratio - to - trend, ratio - to - moving average, and link relative methods.	UNIT-IV Index Number; Meaning, types, and uses; Methods of Constructing price and quantity indices (simple and aggregate); Tests of adequacy; Chain - base index numbers; Base shifting, splicing and deflating; Problems in constructing index numbers; Consumer price index. Analysis of Time Series : Cause of Variation in time series data; Components of a time series; Decomposition - Additive and Multiplicative models; Determination of trend - Moving Averages Method and method of least squares (including linear, second degree, parabolic, and exponential trend); Computation of seasonal indices by simple averages, ratio - to - trend, ratio - to - moving average, and link relative methods.	
UNIT-V Forecasting and Methods : Forecasting - concept, types and importance; General approach to forecasting; Methods of forecasting; demand; Industry Vs Company sales forecast; Factors affecting company sales. Theory of Probability : as a concept; The three approaches to defining probability; Addition and multiplication laws of probability; Conditional Probability; Bayes' Theorem; Expectation and Variance of a random variable.	UNIT-V Forecasting and Methods : Forecasting - concept, types and importance; General approach to forecasting; Methods of forecasting; demand; Industry Vs Company sales forecast; Factors affecting company sales. Theory of Probability : as a concept; The three approaches to defining probability; Addition and multiplication laws of probability; Conditional Probability; Bayes' Theorem; Expectation and Variance of a random variable.	

SUGGESTED READINGS :

1. S.M.Shukla, Shahitya Bhawan, Agara.
2. Statistical Analysis, Dr. Rajesh Shukla and J.B. Agrawal

Group - III PAPER - II

FUNDAMENTALS OF ENTREPRENEURSHIP

OBJECTIVE

It Provides exposure to the students to the entrepreneurial culture and industrial growth so as to preparing them to set up and manage their own small units.

Current Syllabus	Proposed Syllabus	Remark
UNIT-I Introduction : The entrepreneur; Definition; Emergence of entrepreneurial class; Theories of entrepreneurship; Role of socio - economic environment; Characteri-stics.	UNIT-I Introduction : The entrepreneur; Definition; Emergence of entrepreneurial class; Theories of entrepreneurship; Role of socio - economic environment; Characteri-stics.	
UNIT-II Promotion of a Venture; Opportunities analysis; External environmental analysis economic, social and technological; Competitive factors; Legal requirements for establishment of a new unit, and raising of funds; Venture capital sources and documentation required.	UNIT-II Promotion of a Venture; Opportunities analysis; External environmental analysis economic, social and technological; Competitive factors; Legal requirements for establishment of a new unit, and raising of funds; Venture capital sources and documentation required.	
UNIT-III Entrepreneurial Behavior : Innovation and entrepreneur; Entrepreneurial behavior and Psycho - Theories, Social responsibility.	UNIT-III Entrepreneurial Behavior : Innovation and entrepreneur; Entrepreneurial behavior and Psycho - Theories, Social responsibility.	
UNIT-IV Entrepreneurial Development Programs (EDP) : EDP, their role, relevance, and achievements; Role of Government in organizing EDPs; Critical evaluation.	UNIT-IV Entrepreneurial Development Programs (EDP) : EDP, their role, relevance, and achievements; Role of Government in organizing EDPs; Critical evaluation.	
UNIT-V Role of Entrepreneur : Role of an entrepreneur in economic growth as an innovator, generation of employment opportunities, complementing and supplementing economic growth, bringing about social stability and balanced regional development of industries; Role in export promotion and import substitution, forex earnings, and augmenting and meeting local demand.	UNIT-V Role of Entrepreneur : Role of an entrepreneur in economic growth as an innovator, generation of employment opportunities, complementing and supplementing economic growth, bringing about social stability and balanced regional development of industries; Role in export promotion and import substitution, forex earnings, and augmenting and meeting local demand.	

SUGGESTED READINGS :

3. Srivastava S.B. : A Practical Guide to industrial Entrepreneurs; Sultan Chand and Sons, New Delhi.
4. Tandon B.C. : Environment and Entrepreneur; Chugh Publications, Allahabad.
5. Prasanna Chandra : Project Preparation, Appraisal, Implementation; Tata McGraw Hill, New Delhi.

COMPUTER APPLICATION
MARKS DISTRIBUTION PAPER - I
INTERNET APPLICATION & E-COMMERCE

Current Syllabus	Proposed Syllabus	Remark
<p>UNIT - I Introduction to HTML</p> <p style="text-align: center;">Introduction to Internet & World Wide Web</p> <p>Internet- Indian and the Internet, Profile of Indian Surfer, History of the Internet, Indian Internet History, Technological Foundation of Internet, Application in Internet Environment, Movement of files/data between two computers, TCP/IP, IP Addresses, Domain Name System, Domain Name Services, allocation of second level domains in India, Internet & India.</p> <p>World Wide Web (WWW) - WWW consortium browsing and Information retrieval, exploring the WWW, address : URL.</p>	<p>UNIT - I Introduction to HTML</p> <p style="text-align: center;">Introduction to Internet & World Wide Web</p> <p>Internet- Indian and the Internet, Profile of Indian Surfer, History of the Internet, Indian Internet History, Technological Foundation of Internet, Application in Internet Environment, Movement of files/data between two computers, TCP/IP, IP Addresses, Domain Name System, Domain Name Services, allocation of second level domains in India, Internet & India.</p> <p>World Wide Web (WWW) - WWW consortium browsing and Information retrieval, exploring the WWW, address : URL.</p>	
<p>UNIT - II</p> <p style="text-align: center;">Introduction to HTML & Designing Web Page</p> <p>Concept to Website, Web standards, What is HTML, HTML documents / file, HTML Editor, Explanation of the structure of Homepage, Elements in HTML Documents, HTML Elements, HTML Tags & Basic HTML Tags, viewing the source of web page & downloading the web page source, Extensible HTML, CSS, XML, XSL.</p> <p>HTML Document Structure - Head Section</p> <p>IIIustration of Document Structure, Mark-up elements within the Head : BASE, ISINDEX, LINK, META, TITLE, SCRIPT.</p>	<p>UNIT - II</p> <p style="text-align: center;">Introduction to HTML & Designing Web Page</p> <p>Concept to Website, Web standards, What is HTML, HTML documents / file, HTML Editor, Explanation of the structure of Homepage, Elements in HTML Documents, HTML Elements, HTML Tags & Basic HTML Tags, viewing the source of web page & downloading the web page source, Extensible HTML, CSS, XML, XSL.</p> <p>HTML Document Structure - Head Section</p> <p>IIIustration of Document Structure, Mark-up elements within the Head : BASE, ISINDEX, LINK, META, TITLE, SCRIPT.</p>	
<p>UNIT - III</p> <p style="text-align: center;">HTML Document Structure & HTML Forms</p> <p>Body Section - IIIustration, Body elements,</p>	<p>UNIT - III</p> <p style="text-align: center;">HTML Document Structure & HTML Forms</p> <p>Body Section - IIIustration, Body</p>	

<p>Background, TEXT BODY element, ADDRESS, BLOCKQUOTE, TABLE, COMMENTS, CHARACTER Emphasis modes, Logical styles, Physical Styles, FONT, BASEFONT and CENTER.</p> <p>Image, Internal and External Linking Between Web Pages - IMG Elements, HEIGHT, WIDTH, ALT, ALLIGN, Illustration of IMG elements, Hypertext Anchors, NAME attribute in Anchor.</p> <p>HTML Forms - Forms, Form tag, Form Structure, Input types, Drop down menu or select menu tags, image buttons.</p>	<p>elements, Background, TEXT BODY element, ADDRESS, BLOCKQUOTE, TABLE, COMMENTS, CHARACTER Emphasis modes, Logical styles, Physical Styles, FONT, BASEFONT and CENTER.</p> <p>Image, Internal and External Linking Between Web Pages - IMG Elements, HEIGHT, WIDTH, ALT, ALLIGN, Illustration of IMG elements, Hypertext Anchors, NAME attribute in Anchor.</p> <p>HTML Forms - Forms, Form tag, Form Structure, Input types, Drop down menu or select menu tags, image buttons.</p>	
<p>UNIT - IV</p> <p>Introduction to E-Commerce & Business Strategy in Electronic Age</p> <p>E-Commerce - Scope & definition of language, E-commerce & Trade cycle, E-markets, E-Data Interchange, Internet Commerce, E-commerce in Perspective.</p> <p>Business Strategy - The value chain, competitive advantage, business strategy, Case-Study : e-commerce in Passenger Air Transport.</p>	<p>UNIT - IV</p> <p>Introduction to E-Commerce & Business Strategy in Electronic Age</p> <p>E-Commerce - Scope & definition of language, E-commerce & Trade cycle, E-markets, E-Data Interchange, Internet Commerce, E-commerce in Perspective.</p> <p>Business Strategy - The value chain, competitive advantage, business strategy, Case-Study : e-commerce in Passenger Air Transport.</p>	
<p>UNIT - V</p> <p>B to B e-Commerce & B to C e-Commerce</p> <p>Business to Business e-Commerce - Inter-organisational Transactions, Electronic markets, Electronic Data Interchange (EDI) - the nuts and bolts, EDI and business, Inter roganizational e-Commerce.</p> <p>Business to Consumer e-Commerce - Consumer trade transactions.</p> <p>The elements of e-Commerce - elements, e-visibility, e-shop online payments, delivering the goods, after sales service, Internet e-Commerce Security A web site evaluation model.</p> <p>e-Business - Introduction, Internet Bookshops, Software Supplies & support, e-newspapers, internet banking, virtual auctions, online share dealing, gambling on net, e-diversity.</p>	<p>UNIT - V</p> <p>B to B e-Commerce & B to C e-Commerce</p> <p>Business to Business e-Commerce - Inter-organisational Transactions, Electronic markets, Electronic Data Interchange (EDI) - the nuts and bolts, EDI and business, Inter roganizational e-Commerce.</p> <p>Business to Consumer e-Commerce - Consumer trade transactions.</p> <p>The elements of e-Commerce - elements, e-visibility, e-shop online payments, delivering the goods, after sales service, Internet e-Commerce Security A web site evaluation model.</p> <p>e-Business - Introduction, Internet Bookshops, Software Supplies & support, e-newspapers, internet banking, virtual auctions, online share dealing, gambling on net, e-diversity.</p>	

COMPUTER APPLICATION
PAPER - II
RELATIONAL DATABASE MANAGEMENT SYSTEM

Current Syllabus	Proposed Syllabus	Remark
<p>UNIT - I</p> <p>DATABASE SYSTEM CONCEPT & ENTITY RELATIONSHIP MODEL :</p> <p>Operational data, why database, data independence, an Architecture for a Data base system, DDL & DML, Data Dictionary, Data Structures and Corresponding Operators, Data Models, The Relational approach, The Network approach, DBMS storage structure and access method. Entity-Relationship model as a tool for conceptual design-entities attributes and relationships. ER diagrams; strong and weak entities Generatization; Specialization and aggregation. Converting and ER-model into relational.</p>	<p>UNIT - I</p> <p>DATABASE SYSTEM CONCEPT & ENTITY RELATIONSHIP MODEL :</p> <p>Operational data, why database, data independence, an Architecture for a Data base system, DDL & DML, Data Dictionary, Data Structures and Corresponding Operators, Data Models, The Relational approach, The Network approach, DBMS storage structure and access method. Entity-Relationship model as a tool for conceptual design-entities attributes and relationships. ER diagrams; strong and weak entities Generatization; Specialization and aggregation. Converting and ER-model into relational.</p>	
<p>UNIT - II</p> <p>Relational Database Management System</p> <p>Relational Model : Structure to Relational Database, Relational Algebra, The Domain Relational, Calculus, Extended Relational- Algebra Operation, Modification of database, Views. Relational Database Design :- Pitfalls in Relational Database Design, Decomposition, Functional Dependencies, Normalization : INF, 2NF, BCNF, 3NF, 4NF, 5NF operations not involving cursors, Operations involving cursors, dynamic statements, security & intergrity security specification in SQL.</p>	<p>UNIT - II</p> <p>Relational Database Management System</p> <p>Relational Model : Structure to Relational Database, Relational Algebra, The Domain Relational, Calculus, Extended Relational- Algebra Operation, Modification of database, Views. Relational Database Design :- Pitfalls in Relational Database Design, Decomposition, Functional Dependencies, Normalization : INF, 2NF, BCNF, 3NF, 4NF, 5NF operations not involving cursors, Operations involving cursors, dynamic statements, security & intergrity security specification in SQL.</p>	

<p>UNIT - III</p> <p>RELATIONAL DATABASE DESIGN :</p> <p>Relational Algebra, Traditional Set Operations, Attributes Names for Derived Relations, special relational operations, further normalization, functional dependence. First, second and third normal forms, BCNF Forms, relations with more than one candidate key, Good and bad decompositions, fourth normal form, fifth normal form, De-normalization.</p>	<p>UNIT - III</p> <p>RELATIONAL DATABASE DESIGN :</p> <p>Relational Algebra, Traditional Set Operations, Attributes Names for Derived Relations, special relational operations, further normalization, functional dependence. First, second and third normal forms, BCNF Forms, relations with more than one candidate key, Good and bad decompositions, fourth normal form, fifth normal form, De-normalization.</p>	
<p>UNIT - IV</p> <p>Introduction to RDBMS Software - Oracle</p> <p>(a) Introduction : Introduction to personnel and Enterprises Oracle, Data Types, Commercial Query Language, SQL, SQL * PLUS.</p> <p>(b) DDL and DML : Creating Table, Specify Integrity Constraint, Modifying Existing Table, Dropping Table, Inserting, Deleting and Updating Rows in as Table, Where Clause, Operators, ORDER BY, GROUP Function, SQL Function, JOIN, Set Operation, SQL Sub Queries. Views : What is Views, Create, Drop and Retrieving data from views.</p>	<p>UNIT - IV</p> <p>Introduction to RDBMS Software - Oracle</p> <p>(a) Introduction : Introduction to personnel and Enterprises Oracle, Data Types, Commercial Query Language, SQL, SQL * PLUS.</p> <p>(b) DDL and DML : Creating Table, Specify Integrity Constraint, Modifying Existing Table, Dropping Table, Inserting, Deleting and Updating Rows in as Table, Where Clause, Operators, ORDER BY, GROUP Function, SQL Function, JOIN, Set Operation, SQL Sub Queries. Views : What is Views, Create, Drop and Retrieving data from views.</p>	
<p>UNIT - V</p> <p>(a) Security : Management of Roles, Changing Password, Granting Roles & Privilege, with drawing privileges.</p> <p>(b) PL/SQL : Block Structure in PL/SQL, Variable and constants, Running PL/SQL in the SQL*PLUS, Data base Access with PL/SQL, Exception Handling, Record Data type in PL/S!L, Triggers in PL/SQL.</p>	<p>UNIT - V</p> <p>(a) Security : Management of Roles, Changing Password, Granting Roles & Privilege, with drawing privileges.</p> <p>(b) PL/SQL : Block Structure in PL/SQL, Variable and constants, Running PL/SQL in the SQL*PLUS, Data base Access with PL/SQL, Exception Handling, Record Data type in PL/S!L, Triggers in PL/SQL.</p>	

COMPUTER APPLICATION
MARKS DISTRIBUTION

Theory Paper	Paper - I	Total Marks - 50
	Paper - II	Total Marks - 50
Every unit of theory paper will consists of 10 marks.		
Practical Paper		Total Marks - 50
Practical Marks Distribution :		
	Viva	- 10
	Internal	- 15
	Practical	- 25
		<hr/>
		Total Marks - 150
		<hr/>

Practical Test will consist of 3 Hrs.

Syllabus of B.Com.-II (Computer Application)

PAPER - I

INTERNET APPLICATION & E-COMMERCE

(Paper Code-1139)

UNIT - I Introduction to HTML

Introduction to Internet & World Wide Web

Internet - Indian and the Internet, Profile of Indian Surfer, History of the Internet, Indian Internet History, Technological Foundation of Internet, Application in Internet Environment, Movement of files/data between two computers, TCP/IP, IP Addresses, Domain Name System, Domain Name Services, allocation of second level domains in India, Internet & India.

World Wide Web (WWW) - WWW consortium browsing and Information retrieval, exploring the WWW, address : URL.

UNIT - II

Introduction to HTML & Designing Web Page

Concept to Website, Web standards, What is HTML, HTML documents / file, HTML Editor, Explanation of the structure of Homepage, Elements in HTML Documents, HTML Elements, HTML Tags & Basic HTML Tags, viewing the source of web page & downloading the web page source, Extensible HTML, CSS, XML, XSL.

HTML Document Structure - Head Section

Illustration of Document Structure, Mark-up elements within the Head : BASE, ISINDEX, LINK, META, TITLE, SCRIPT.

Sharma
11-06-2018
(Dr. Jayjay Kumar)

Anuj
11/06/18
(Dr. A.K. Devedi)

Garol
11/06/18
(L.K. Gaur)

Sharma
Laxmi
11-06-18
Hari Shankar Prasad Tripathi

11/06/18
(Dr. J. Dey)

UNIT - III

HTML Document Structure & HTML Forms

Body Section - Illustration, Body elements, Background, TEXT BODY element, ADDRESS, BLOCKQUOTE, TABLE, COMMENTS, CHARACTER Emphasis modes, Logical styles, Physical Styles, FONT, BASEFONT and CENTER.

Image, Internal and External Linking Between Web Pages - IMG Elements, HEIGHT, WIDTH, ALT, ALLIGN, Illustration of IMG elements, Hypertext Anchors, NAME attribute in Anchor.

HTML Forms - Forms, Form tag, Form Structure, Input types, Drop down menu or select menu tags, image buttons.

UNIT - IV

Introduction to E-Commerce & Business Strategy in Electronic Age

E-Commerce - Scope & definition of language, E-commerce & Trade cycle, E-markets, E-Data Interchange, Internet Commerce, E-commerce in Perspective.

Business Strategy - The value chain, competitive advantage, business strategy, Case-Study : e-commerce in Passenger Air Transport.

UNIT - V

B to B e-Commerce & B to C e-Commerce

Business to Business e-Commerce - Inter-organisational Transactions, Electronic markets, Electronic Data Interchange (EDI) - the nuts and bolts, EDI and business, Inter roganizational e-Commerce.

Business to Consumer e-Commerce - Consumer trade transactions.

The elements of e-Commerce - elements, e-visibility, e-shop online payments, delivering the goods, after sales service, Internet e-Commerce Security A web site evaluation model.

e-Business - Introduction, Internet Bookshops, Software Supplies & support, e-newspapers, internet banking, virtual auctions, online share dealing, gambling on net, e-diversity.

TEXT BOOKS :

1. An Introduction to HTML - Dr. Kamlesh N. Agarwala, Dr. O.P. Vyas, Dr. Prateek A. Agarwala.
2. E-Commerce strategy, technologies & applications - David Whiteley.

REFERENCE BOOKS :

1. Business on the Net - Dr. Kamlesh N. Agarwala (Macmillan India Ltd.)

B.Com. -Part-II

(14)

Sumar
11-06-2018

Dr. Anuj Kumar

Anuj
11/6/18
(Dr. A.K. Dwivedi)

Praveen
11/06/18
(L.K. Goyal)

Yash
Tareel
11-06-18
Hari Shankar Prasad Tareel

Hari
11/6/18
(Dr. J. J. Singh)
Kumar

PAPER - II
RELATIONAL DATABASE MANAGEMENT SYSTEM
(Paper Code-1140)

UNIT - I

DATABASE SYSTEM CONCEPT & ENTITY RELATIONSHIP MODEL :

Operational data, why database, data independence, an Architecture for a Data base system, DDL & DML, Data Dictionary, Data Structures and Corresponding Operators, Data Models, The Relational approach, The Network approach, DBMS storage structure and access method. Entity-Relationship model as a tool for conceptual design-entities attributes and relationships. ER diagrams; strong and weak entities Generalization; Specialization and aggregation. Converting and ER-model into relational.

UNIT - II

Relational Database Management System

Relational Model : Structure to Relational Database, Relational Algebra, The Domain Relational, Calculus, Extended Relational- Algebra Operation, Modification of database, Views. **Relational Database Design :-** Pitfalls in Relational Database Design, Decomposition, Functional Dependencies, Normalization : 1NF, 2NF, BCNF, 3NF, 4NF, 5NF operations not involving cursors, Operations involving cursors, dynamic statements, security & integrity security specification in SQL.

UNIT - III

RELATIONAL DATABASE DESIGN :

Relational Algebra, Traditional Set Operations, Attributes Names for Derived Relations, special relational operations, further normalization, functional dependence. First, second and third normal forms, BCNF Forms, relations with more than one candidate key, Good and bad decompositions, fourth normal form, fifth normal form, De-normalization.

UNIT - IV

Introduction to RDBMS Software - Oracle

- (a) **Introduction :** Introduction to personnel and Enterprises Oracle, Data Types, Commercial Query Language, SQL, SQL * PLUS.
- (b) **DDL and DML :** Creating Table, Specify Integrity Constraint, Modifying Existing Table, Dropping Table, Inserting, Deleting and Updating Rows in as Table, Where Clause, Operators, ORDER BY, GROUP Function, SQL Function, JOIN, Set Operation, SQL Sub Queries. Views : What is Views, Create, Drop and Retrieving data from views.

B. Com. -Part-II

(15)

Sanjay Kumar
11-06-2018

Anuj
11/6/18
(Dr. A.K. Desai)

Gautam
11/06/18
(L.K. Gavel)

Yash
11-06-18
Hari Shankar Prasad (son)

Yash
11/6/18
(Dr. J. Dey)

(Dr. Sanjay Kumar)

UNIT - V

- (a) **Security** : Management of Roles, Changing Password, Granting Roles & Privilege, with drawing privileges.
- (b) **PL/SQL** : Block Structure in PL/SQL, Variable and constants, Running PL/SQL in the SQL*PLUS, Data base Access with PL/SQL, Exception Handling, Record Data type in PL/SQL, Triggers in PL/SQL.

SUGGESTED BOOKS :

- 1. Data base system : Korth & Siberschatz.
- 2. An Introduction to Data base System : C.J. Date

PAPER - III

PRACTICAL EXERCISES BASED ON PAPER I & II

Practicals to be done :

- 1. Creating simple Web-pages using html.
- 2. Designing *business web-sites* using HTML features (e.g. html forms)
[Each student should study the existing *business web-sites* and do atleast 05 exercises to create business websites using various html features]
- 3. Should perform various queries using SQL.
[Each student should create ER diagrams for various business scenario, and convert it into tables, using any RDBMS Software (i.e. Oracle / Access)]
- 4. Practical using various aspects of Oracle.
[At least 10 practical-exercises covering the contents of paper-II]

B. Com. -Part-II

Suresh
11-06-2018
(Dr. Sanjay Kumar)

Anuj
11/6/18
(Dr. A.K. Devedhi)

Praveen
11/06/18
(C.K. Goyal)

(16)
Yash
Laxmi
11-06-18
Hari Manjun Prasad Rande
(Dr. J. Jagan Prasad Rao)

**SYLLABUS
B.COM. PART-III**

**GROUPING OF SUBJECTS AND SCHEME OF
EXAMINATION**

Subject		Max.	Min.
Foundation Course			
I. Hindi Language		75	26
II. English Language		75	26
Compulsory Groups			
Group-I			
I. Income Tax	75	150	50
II. Auditing	75		
Group-II			
I. Indirect Taxes	75	150	50
II. Management Accounting	75		
Group-III Optional			
Option Group A (Finance Area)			
I. Financial Management	75	150	50
II. Financial Market Operations	75		
Option Group B (Marketing Area)			
I. Principles of Marketing	75	150	50
II. International Marketing	75		
Option Group C (Commercial Area)			
I. Information Technology and its Applications in Business	75	150	50
II. Essential of e-Commerce	75		
Option Group D (Money Banking & Insurance Area)			
I. Fundamental of Insurance	75	150	50
II. Money & Banking System	75		

B.COM PART III

COMPULSORY CORE COURSE

TITLE OF PAPER - Group-I - PAPER – I - INCOME TAX

OBJECTIVE

It enables the students to know the basics of Income Tax Act and its implications.

M.M. 75

Present syllabus	Proposed syllabus	Remark
UNIT-I Basic Concepts : Income, agricultural Income, casual income, assessment year, previous year, gross total income, total income, person. Basis of charge : Scope of total income, residence and tax liability, income which does not form part of total income.	UNIT-I Basic Concepts : Income, agricultural Income, casual income, assessment year, previous year, gross total income, total income, person. Basis of charge : Scope of total income, residence and tax liability, income which does not form part of total income.	No change
UNIT-II Heads of Income : Salaries; Income from house property.	UNIT-II Heads of Income : Salaries; Income from house property.	No change
UNIT-III Profit and gains of business or profession, including provisions relating to specific business; Capital gains, Income from other sources.	UNIT-III Profit and gains of business or profession, including provisions relating to specific business; Capital gains, Income from other sources.	No change
UNIT-IV Computation of Tax Liability : Set-off and carry forward of losses; Deduction from gross total income. Aggregation of income; Computation of total income and tax liability of and individual, H.U.F., and firm.	UNIT-IV Computation of Tax Liability : Set-off and carry forward of losses; Deduction from gross total income. Aggregation of income; Computation of total income and tax liability of individual and & HUF,	Omitted firm.
UNIT-V Tax Management : Tax deduction at source; Advance payment of tax; Assessment procedures; Tax planning for individuals. Tax evasion, Tax Avoidance and Tax planning. Tax	UNIT-V Tax Management : Tax deduction at source; Advance payment of tax; Assessment procedures; Tax planning for individuals. Tax evasion, Tax Avoidance and Tax planning. Tax	Addition of practical work relating important

Administration : Authorities, appeals, penalties.	Administration : Authorities, appeals, penalties. Preparation of return of income -Manually and on line	forms.
---	---	--------

Suggested Reading :

1. Singhanian V.K. : Students Guide to Income Tax; Taxmann, Delhi.
2. Prasad, Bhagwati : Income Tax Law & Practice; Wily Publication, New Delhi.
3. Mehrotra H.C. : Income Tax Law & Accounts : Sahitya Bhawan, Agra.
4. Girish Ahuja and Ravi Gupta : Systematic approach to income tax : Sahitya Bhawan Publications, New Delhi.
5. Chandra Mahesh and Shukla D.C. : Income Tax Law and Practice; Pragati Publications, New Delhi.
6. R.K. Jain : Income Tax & Law (Hindi & English) Sahitya Bhawan, Publication, Agra

B.COM PART III

COMPULSORY CORE COURSE

PAPER – II

Group-II - PAPER – I - **INDIRECT TAXES WITH GST**

OBJECTIVE

This course aims at imparting basic knowlege about GST and apply the provisions of GST law to various situations.

M.M. 75

Present syllabus	Proposed syllabus	Remark
UNIT-I Central Excise : Nature and scope of Central Excise; Important terms and definitions under the Central Excise Act; General procedures of central excise; Clearance and excisable goods; Concession to small scale industry under Central Excise Act.	UNIT-I Customs : Role of customs in international trade; Important terms and definitions goods; Duty; Exporter; Foreign going vessel; Aircraft goods; Import; Import Manifest; Importer; Prohibited goods; Shipping bill; Store; Bill of lading; Export manifest; Letter of credit; Kinds of duties - basic, auxillary, additional or coutervailing; Basics of levyadvalorem,specific duties; Prohibition of export and import of goods, and provisions regarding notified & specified goods; Import of goods - Free import and restricted import; Type of import - import of cargo, import of personal baggage, import ofstores.Clearance Procedure - For home consumption, for warehousing for re-export; Clearance procedure for import by post; Prohibited exports; Canalised exports; Export against licensing; Type of exports export of cargo, export of baggage; Export of cargo by land, sea, and air routes.	Due to – Constitutional amendment (change in tax structure)
UNIT-II State Excise, CENVAT. Detail study of State Excise during calculation of Tax.	UNIT-II State Excise, CENVAT. Detail study of State Excise during calculation of Tax.	
UNIT-III Customs : Role of customs in international	UNIT-III INTRODUCTION TO GOODS AND	

<p>trade; Important terms and definitions goods; Duty; Exporter; Foreign going vessel; Aircraft goods; Import; Import Manifest; Importer; Prohibited goods; Shipping bill; Store; Bill of lading; Export manifest; Letter of credit; Kinds of duties - basic, auxiliary, additional or countervailing; Basics of levy ad valorem, specific duties; Prohibition of export and import of goods, and provisions regarding notified & specified goods; Import of goods - Free import and restricted import; Type of import - import of cargo, import of personal baggage, import of stores. Clearance Procedure - For home consumption, for warehousing for re-export; Clearance procedure for import by post; Prohibited exports; Canalised exports; Export against licensing; Type of exports export of cargo, export of baggage; Export of cargo by land, sea, and air routes.</p>	<p>SERVICES TAX (GST) -Objectives and basic scheme of GST, Meaning – Salient features of GST – Subsuming of taxes –Benefits of implementing GST , Structure of GST (Dual Model) – Central GST – State / Union Territory GST – Integrated GST GST Council: Structures Power and Functions. Provisions for amendments.</p>	
<p>UNIT-IV Central Sales Tax : Important terms and definitions under the Central Sales Tax Act 1956 - Dealer, declared good, place of business, sale, sale price, turnover, year, appropriate authority ; Nature and scope of Central Sales Tax Act; Provisions relating to inter-state sales; Sales in side a state; Sales/purchase in the course of imports and exports out of India. Registration of dealers and procedure thereof; Rate of tax; Exemption of subsequent sales; Determination of</p>	<p>UNIT-IV Registration under GST: Procedure for registration, Persons liable for registration, Persons not liable for registration, Compulsory registration. Exempted goods and services - Rates of GST. Procedure relating to Levy: (CGST & SGST): Scope of supply, Tax liability on Mixed and Composite supply, Time of supply of goods and services, Value of taxable supply. Way-Billing</p>	

turnover.		
UNIT-V State Commercial Tax (Chhattisgarh) Definition, Registration, Tax liability, Procedure of Computation & Collection of Tax, Penalties & Prosecution calculation of Tax. VAT Preliminary Knowledge.	UNIT-V ASSESSMENT AND RETURNS - Input tax Credit: Eligibility, Apportionment, Inputs on capital goods, Distribution of credit by Input Service Distributor (ISD) Furnishing details of outward supplies and inward supplies, First return, Annual return and Final return.	

Suggested Reading :

1. Deloitte: GST Era Beckons, Wolters Kluwer.
2. Madhukar N Hiregange: Goods and Services Tax, Wolters Kluwer.
3. All About GST: V.S Datey - Taxman's.
4. Guide to GST: CA. Rajat Mohan,
5. Goods & Services Tax – Indian Journey: N.K. Gupta & Sunnania Batia, Barat's Publication
6. Goods & Services Tax – CA. Rajat Mohan,
7. Goods & Services Tax: Dr. Sanjiv Agrawal & CA. Sanjeev Malhotra.
8. GST - Law & Practice: Dr. B.G. Bhaskara, Manjunath. N & Naveen Kumar IM,
9. Understanding GST : Kamal Garg, Barat's Publication

B.COM PART III

COMPULSORY CORE COURSE

TITLE OF PAPER - Group-II - PAPER – II -MANAGEMENT ACCOUNTING

OBJECTIVE

This course provides the students an understanding of the application of accounting techniques for management.

M.M. 75

Present syllabus	Proposed syllabus	Remark
UNIT-I Management Accounting : Meaning, nature, scope, and functions of management Accounting ; Role of management accounting in decision making; Management accounting vs financial accounting; Tools and techniques of management accounting ;Financial statement; Objectives and methods of financial statements analysis; Ratio analysis; Classification of ratios - Profitability ratios, turnover ratios, liquidity ratios,turnover ratios; Advantages of ratio analysis; Limitations of accounting ratios.	UNIT-I Management Accounting : Meaning, nature, scope, and functions of management Accounting ; Role of management accounting in decision making; Management accounting vs financial accounting; Tools and techniques of management accounting ;Financial statement; Objectives and methods of financial statements analysis; Ratio analysis; Classification of ratios - Profitability ratios, turnover ratios, liquidity ratios,turnover ratios; Advantages of ratio analysis; Limitations of accounting ratios.	No change
UNIT-II Funds Flow Statement as per Indian Accounting Standard 3, cash flow statement.	UNIT-II Funds Flow Statement as per Indian Accounting Standard 3, cash flow statement.	
UNIT-III Absorption and Marginal Costing : Marginal and differential costing as a tool for decision making - make or buy; Change of product mix; Pricing, Break-even analysis; Exploring new markets; Shutdown decisions.	UNIT-III Absorption and Marginal Costing : Marginal and differential costing as a tool for decision making - make or buy; Change of product mix; Pricing, Break-even analysis; Exploring new markets; Shutdown decisions.	
UNIT-IV Budgeting for profit Planning and control : Meaning of budget and budgetary control;Objectives; Merits and limitations; Types of budgets; Fixed and	UNIT-IV Budgeting for profit Planning and control : Meaning of budget and budgetary control;Objectives; Merits and limitations; Types of budgets; Fixed and	

flexible budgeting; Control ratios; Zero base budgeting; Responsibility accounting; Performance budgeting.	flexible budgeting; Control ratios; Zero base budgeting; Responsibility accounting; Performance budgeting.	
UNIT-V Standard Costing and Variance Analysis : Meaning of standard cost and standard costing; Advantages and application; Variance analysis - material; Labour and overhead (Two-way analysis); Variances.	UNIT-V Standard Costing and Variance Analysis : Meaning of standard cost and standard costing; Advantages and application; Variance analysis - material; Labour and overhead (Two-way analysis); Variances.	

Suggested Reading :

1. Arora M.N. : Cost Accounting - Principles and Practice, Vikas, New Delhi.
2. Jain S.P. & Narang K.L. : Cost Accounting; Kalyani, New Delhi.
3. Anthony, Rogert & Reece, at al : Principles of Management Accounting; Richard Irwin Inc.
4. Horngren, Charles, Foster and Datar et al : Cost Accounting - A Managerial Emphasis;Prentice Hall, New Delhi.
5. Khan M.Y. and Jain P.K. : Management Accounting : Tata McGraw Hill, New Delhi.
6. Kaplan R.S. and Atkonson A.A. : Advanced Management Accounting; Printice Hall India,New Delhi.
7. J.K. Agrawal & R.K. Agrawal : Jaipur (English & Hindi).
8. Dr. M.R. Agrawal : Minakshi Prakashan Meruth.
9. Dr. S.P. Gupta - Agra (Hindi & English).

-

B.COM PART III

COMPULSORY CORE COURSE

TITLE OF PAPER - Group-I - PAPER – II - AUDITING

OBJECTIVE

This course aims at imparting knowlege about the principles and methods of auditing and their applications.

M.M. 75

Present syllabus	Proposed syllabus	Remark
UNIT-I Introduction : Meaning and objectives of auditing; Types of audit; Internal audit.Audit Process : Audit programme; Audit note books; Working papers and evidences.	UNIT-I Introduction : Meaning and objectives of auditing; Types of audit; Internal audit.Audit Process : Audit programme; Audit note books; Working papers and evidences.	No change
UNIT-II Internal Check System : Internal control. Audit Procedure : Vouching : Verification of assets and liabilities.	UNIT-II Internal Check System : Internal control. Audit Procedure : Vouching : Verification of assets and liabilities.	No change
UNIT-III Audit of Limited Companies : a. Company auditor - Appointment, powers, duties, and liabilities. b. Divisible profits and dividend. c. Auditor's report - standard report and qualified report. d. Special audit of banking companies. e. Audit of educational institutions. f. Audit of Insurance companies.	UNIT-III Audit of Limited Companies : a. Company auditor –Qualification, Appointment, powers, duties, Resignation and liabilities. b. Divisible profits and dividend. c. Auditor's report - standard report and qualified report. d. Special audit of banking companies. e. Audit of educational institutions. f. Audit of Insurance companies.	Added Qualification and Resignation of company auditor
UNIT-IV Investigation : Investigation; Audit of non profit companies, a. Where fraud is suspected, and b. When a running a business is proposed. c. Varifications & Valuation of assets.	UNIT-IV Investigation : Investigation; Audit of non profit companies, a. Where fraud is suspected, and b. When a running a business is proposed. c. Varifications & Valuation of assets.	No change

<p>UNIT-V Recent Trends in Auditing : Nature and significance of cost audit; Tax audit; Management audit. Company auditing - Qualification, Appointment, Resignation and liabilities.</p>	<p>UNIT-V Recent Trends in Auditing : Nature and significance of cost audit; Tax audit; Management audit .</p>	<p>Omitted company auditing - Qualification , Appointment , Resignation and Liabilities and merge it in II unit</p>
---	--	---

Suggested Reading :

1. Gupta KaPal : Contemporary Auditing : Tata Mcgraw Hill, New Delhi.
2. Tandon B.N. : Principles of Auditing : S. Chand & Co., New Delhi.
3. Pagare Dinkar : Principles and Practice of Auditing : Sultan Chand, New Delhi.
4. Sharma T.R. : Auditing Principles and Problems, Sahitya Bhawan, Agra.
5. Shukla S.M. : Auditing - Shahitya Bhavan, Agra, (Hindi)
6. Batliboy : Auditing.

--

B.COM PART III

OPTIONAL GROUP A (Finance Area)

TITLE OF PAPER - FINANCIAL MANAGEMENT

PAPER - I

OBJECTIVE

The objective of this course is to help students understand the conceptual framework of financial management.

M.M. 75

Present syllabus	Proposed syllabus	Remark
UNIT-I Financial Management : Financial goals; Profit vs wealth maximization; Financial functions-investment, financing, and dividend decisions; Financial planning.	UNIT-I Financial Management : Financial goals; Profit vs wealth maximization; Financial functions-investment, financing, and dividend decisions; Financial planning.	No change
UNIT-II Capital Budgeting : Nature of investment decisions, Investment evaluation criteria, payback period, accounting rate of return, net present value, internal rate of return profitability index; NPV and IRR comparison.	UNIT-II Capital Budgeting : Nature of investment decisions, Investment evaluation criteria, payback period, accounting rate of return, net present value, internal rate of return profitability index; NPV and IRR comparison.	
UNIT-III Cost of Capital : Significance of cost of capital; Calculating cost of debt; Preference shares, equity capital, and retained earnings; Combined (weighted) cost of capital. Operating and financial Leverage : Their measure; Effects on profit, analyzing alternate financial plans, combined financial and operating leverage.	UNIT-III Cost of Capital : Significance of cost of capital; Calculating cost of debt; Preference shares, equity capital, and retained earnings; Combined (weighted) cost of capital. Operating and financial Leverage : Their measure; Effects on profit, analyzing alternate financial plans, combined financial and operating leverage.	
UNIT-IV Capital Structure : Theories and determinates. Dividend Policies : Issues in dividend policies; Walter's model; Gordon's model; M.M. Hypothesis, forms of dividends and stability in dividends, determinats.	UNIT-IV Capital Structure : Theories and determinates. Dividend Policies : Issues in dividend policies; Walter's model; Gordon's model; M.M. Hypothesis, forms of dividends and stability in dividends, determinats.	
UNIT-V Management of Working Capital : Nature of	UNIT-V Management of Working Capital : Nature of	

<p>working capital, significance of working capital, operating cycle and factors determining of working capital requirements, Management of working capital - cash, recevables, and inventories.</p>	<p>working capital, significance of working capital, operating cycle and factors determining of working capital requirements, Management of working capital - cash, recevables, and inventories.</p>	
---	---	--

Suggested Reading :

1. Van Home J.C. : Financial Management and Policy; Prentice Hall of India, New Delhi.
2. Khan M.Y. and Jain P.K. : Financial Management, Text and Problems; Tata McGrow Hill, New Delhi.
3. Prasanna Chandra L Financial Management Theory and practice; Tata McGrow Hill, New Delhi.
4. Pandey I.M. : Financial Management Vikas Publishing Hous, New Delhi.
5. Brigham E.F. Gapenski L.C., and Ehrhardt M.C. : Financial Management - Theory and Practice; Harcourt College Publishers, Singapore.
6. Bhalla V.K. : Modern Working Capital Management, Anmol Pub. Delhi.

B.COM PART III

OPTIONAL GROUP A (Finance Area)

TITLE OF PAPER - FINANCIAL MARKET OPERATIONS

PAPER – II

OBJECTIVE

This course aims at acquainting the students with the working of financial markets in India.

M.M. 75

Present syllabus	Proposed syllabus	Remark
UNIT-I Money Market : Indian money market's composition and structure; (a) Acceptance houses, (b) Discount houses and (c) Call money market; Recent trends in Indian money market.	UNIT-I Money Market : Indian money market's composition and structure; (a) Acceptance houses, (b) Discount houses and (c) Call money market; Recent trends in Indian money market.	No change
UNIT-II Capital Market : Security market - (a) New issue market, (b) Secondary market; Functions and role of stock exchange; listing procedure and legal requirements; Public issue - pricing and marketing; Stock exchanges - National Stock Exchange and over the counter exchanges.	UNIT-II Capital Market : Security market - (a) New issue market, (b) Secondary market; Functions and role of stock exchange; listing procedure and legal requirements; Public issue - pricing and marketing; Stock exchanges - National Stock Exchange ,Bombay stock exchange	Omitted over the counter exchanges and added Bombay stock exchange
UNIT-III Securities contract and Regulations Act : Main provisions. Investors Protection : Grievances concerning stock exchange dealings and their removal; Grievance cells in stock exchanges; SEBI; Company Law Board; Press; Remedy through courts.	UNIT-III Securities contract and Regulations Act : Main provisions. Investors Protection : Grievances concerning stock exchange dealings and their removal; Grievance cells in stock exchanges; SEBI; Company Law Board; Press; Remedy through courts.	No change
UNIT-IV Functionaries on Stock Exchanges : Brokers, sub brokers, market makers, jobbers, portfolio consultants, institutional investors, and NRIs.	UNIT-IV Functionaries on Stock Exchanges : Brokers, sub brokers, market makers, jobbers, portfolio consultants, institutional investors, and NRIs.	No change
UNIT-V Financial Services : Merchant banking -	UNIT-V Financial Services : Merchant banking -	No change

Functions and roles; SEBI guide-lines; Credit rating - concept, functions, and types.	Functions and roles; SEBI guide-lines; Credit rating - concept, functions, and types.	
---	---	--

Suggested Reading :

1. Chandler M.V. and Goldfeld S.M. : Economics of money and Banking, Harper and Row, New Delhi.
2. Gupta Suraj B. Monetary Economics; s. chand and Co. New Delhi.
3. Gupta Suraj B. Monetary Planning in India; Oxford, Delhi.
4. Bhole L.M. : Financial Markets and Institutions : Tata McGraw Hill, New Delhi.
5. Hooda R.P. : Indian Securities Market - Investors view point; Excell Books, New Delhi.
6. R.B.I. : Functions and Working.
7. R.B.I. : Report in Currency and Finance.
8. R.B.I. : Report of the Committee to Review the working of the Monetary system
Chakravarty committee.
9. R.B.I. : Report of the Committee on the Financial System, Narsimham Committee.

B.COM PART III

OPTIONAL GROUP B (Marketing Area)

TITLE OF PAPER - PRINCIPLES OF MARKETING

PAPER – I

OBJECTIVE

The Objective of this course is to help students to understand the concept of marketing and its applications.

M.M. 75

Present syllabus	Proposed syllabus	Remark
UNIT-I Introduction : Nature and scope of marketing; Importance of marketing as a business function, and in the economy; Marketing concepts - traditional and modern; Selling vs. marketing; Marketing mix; Marketing environment.	UNIT-I Introduction : Nature and scope of marketing; Importance of marketing as a business function, and in the economy; Marketing concepts - traditional and modern; Selling vs. marketing; Marketing mix; Marketing environment.	No change
UNIT-II Consumer Behaviour and Market Segmentation : Nature, scope, and significance of consumer behaviour; Market segmentation - concept and importance; Bases for market segmentation.	UNIT-II Consumer Behaviour and Market Segmentation : Nature, scope, and significance of consumer behaviour; Market segmentation - concept and importance; Bases for market segmentation.	No change
UNIT-III Product : Concept of product, consumer, and industrial goods; Product planning and development; Packaging role and functions; Brand name and trade mark; after sales service; Product life cycle concept. Price : Importance of price in the marketing mix; Factors affecting price of a product/ Service ; Discounts and rebates.	UNIT-III Product : Concept of product, consumer, and industrial goods; Product planning and development; Packaging role and functions; Brand name and trade mark; after sales service; Product life cycle concept. Price : Importance of price in the marketing mix; Factors affecting price of a product/service; Discounts and rebates.	No change
UNIT-IV Distributions Channels and Physical Distribution; Distribution channels - Concept and role; Types of distribution channels. Factors affecting	UNIT-IV Distributions Channels and Physical Distribution; Distribution channels - Concept and role; Types of distribution channels. Factors affecting choice of a	No change

choice of a distribution channel;Retailer and wholesaler; Physical distribution of goods; Transportation, Warehousing, Inventory control; Order processing.	distribution channel; Retailer and wholesaler; Physical distribution of goods; Transportation, Warehousing, Inventory control; Order processing.	
UNIT-V Promotion : Methods of promotion; Optimum promotion mix; Advertising media – their relative merits and limitations; Characteristics of an effective advertisement; Personal selling; Selling as a career; Classification of successful sales person; Functions of salesman.	UNIT-V Promotion : Methods of promotion; Optimum promotion mix; Advertising media – their relative merits and limitations; Characteristics of an effective advertisement; Personal selling; Selling as a career; Classification of successful sales person; Functions of salesman. Recent development in marketing –social marketing, online marketing, Direct marketing , Services marketing, Green marketing.	Added Recent trends in marketing

Suggested Reading :

1. Philip Kotler : Marketing Management Englewood Cliffs; Prentice Hall, N.J.
2. William M. Pride and O.C. Ferrell : Marketing : Houghton - Mifflin Boston.
3. Stanton W.J. Etzel Michael J., and Walker Bruce J. Fundamentals of Marketing; McGraw Hill, New York.
4. Lamb Charles W., Hair Joseph F. and McDaniel Carl : Principles of Marketing; South- Western-Publishing, Cincinnati, Ohio.
5. Cravens David W. Hills Gerald E., Woodruff Robert B : Marketing management : Richard D. Irwin, Homewood Illinois.
6. Kotler Philip and Armstrong Gary : Principles of Marketing; Prentice Hall of India, New Delhi.
7. Dr. R.C. Agrawal, Agra.
8. Dr. S.C. Saxena Agra.
9. Dr. S.K. Jain, Hindi Granth Academi. M.P.
10. Dr. N.C. Jain

B.COM PART III

OPTIONAL GROUP B (Marketing Area)

TITLE OF PAPER - INTERNATIONAL MARKETING

PAPER – II

OBJECTIVE

This course aims at acquainting student with the operations of marketing in international environment.

M.M. 75

Present syllabus	Proposed syllabus	Remark
UNIT-I International Marketing : Nature, definition, and scope of international marketing; Domestic marketing vs. International marketing; International environment external and internal.	UNIT-I International Marketing : Nature, definition, and scope of international marketing; Domestic marketing vs. International marketing; International environment external and internal.	No change
UNIT-II Identifying and Selecting Foreign Market : Foreign market entry mode decisions. Product Planning for international Market : Product designing; Standardization vs. adaptation ; Branding and packaging; Labeling and quality issues; After sales service. International Pricing : Factors Influencing International price; Pricing process-process and methods; International price quotation and payment terms.	UNIT-II Identifying and Selecting Foreign Market : Foreign market entry mode decisions. Product Planning for international Market : Product designing; Standardization vs. adaptation ; Branding and packaging; Labeling and quality issues; After sales service. International Pricing : Factors Influencing International price; Pricing process-process and methods; International price quotation and payment terms.	No change
UNIT-III Promotion of Product/Services Abroad : Methods of international promotion; Direct mail and sales literature; Advertising; Personal selling; Trade fairs and exhibitions.	UNIT-III Promotion of Product/Services Abroad : Methods of international promotion; Direct mail and sales literature; Advertising; Personal selling; Trade fairs and exhibitions.	No change
UNIT-IV International Distribution : Distribution channels and logistics decisions; Selection and appointment of foreign sales agents.	UNIT-IV International Distribution : Distribution channels and logistics decisions; Selection and appointment of foreign sales agents.	No change
UNIT-V Export Policy and Practices in India : Exim policy - an overview; Trends in India's foreign trade; Steps in	UNIT-V Export Policy and Practices in India : Exim policy - an overview; Trends in India's foreign trade;	Added Marketing

starting an export business; Product selection; Market selection; Export pricing; Export finance; Documentation; Export procedures; Export assistance and incentives.	Steps in starting an export business; Product selection; Market selection; Export pricing; Export finance; Documentation; Export procedures; Export assistance and incentives. Marketing Control Process	Control Process
---	---	-----------------

Suggested Reading :

1. Bhattacharya R.L. and Varshney B. : International Marketing Management; Sultan Chand, New Delhi.
2. Bhattacharya B. : Export Marketing Strategies for Success; Global Press, New Delhi.
3. Keegan W.J. : Multinational Marketing Management; Prentice Hall, New Delhi.
4. Kriplani V. : International marketing; Prentice Hall New Delhi.
5. Taggart J.H. and Moder Mott. M.C. : The Essence of International Business; Prentice Hall New Delhi.
6. Kotler Phillip : Principles of Marketing; Prentice Hall New Delhi.
7. Fayer Weather John : International Marketing; Prentice Hall N.J.
8. Caterora P.M. and Keavenay S.M. : Marketing an international Perspective; Erwin Homewood, Illinois.
9. Paliwala, Stanely J. The Essence of International marketing; Prentice Hall, New Delhi.

B.COM PART III

OPTIONAL GROUP C (Commercial Area)

TITLE OF PAPER - INFORMATION TECHNOLOGY AND ITS APPLICATIONS IN BUSINESS

PAPER – I

OBJECTIVE

The objective of the course is to familiarize the students with the innovation information technology and how it affects business. An understanding of the group rules of these technologies will enable the students to appreciate the nitty-gritty Commerce.

M.M. 75

Present syllabus	Proposed syllabus	Remark
UNIT-I Information Revolution and information Technology (IT) : Deployment of Business; Basic features of IT; Impact of IT on business environment and social fabric; Invention of writing; Written books; Printing Press and movable type Gutenberg's invention; Radio; telephone, wireless and satellite communication computing and dissemination of information and knowledge and convergence technologies (Internet with Wireless- WAP).	UNIT-I Information Revolution and information Technology (IT) : Deployment of Business; Basic features of IT; Impact of IT on business environment and social fabric; Invention of writing; Written books; Printing Press and movable type Gutenberg's invention; Radio; telephone, wireless and satellite communication computing and dissemination of information and knowledge and convergence technologies (Internet with Wireless-WAP).	No change
UNIT-II Fundamentals of Computer : Data, information and EDP : Data, information and concept of data and information; Levels of information from data; processing; Electronic data processing; Electronic machines; a. Number Systems and Codes : Different number systems - binary, octal decimal, hexagonal, and their conversion codes used in computers; Bed, EBCDIC, ASCII; Gray and conversions. b. Computer Arithmetic and Gates : Binary arithmetic,	UNIT-II Fundamentals of Computer : Data, information and EDP : Data, information and concept of data and information; Levels of information from data; processing; Electronic data processing; Electronic machines; a. Number Systems and Codes : Different number systems - binary, octal decimal, hexagonal, and their conversion codes used in computers; Bed, EBCDIC, ASCII; Gray and conversions. b. Computer Arithmetic and Gates : Binary arithmetic,	

<p>complements, addition subtraction; Conversion from one system to another; Logic Gates, truth table and applications minimisation, and K-maps.</p> <p>c. Computer Processing System : Definition of computer; Hardware/Software concepts; Generation of computers; Types of computers; Elements of computer; CPU and its functions, Various computer systems.</p> <p>d. I/O devices : Basic concepts of I/O devices; Various input devices Keyboard, mouse; MICR, OCR, microphones.</p> <p>e. Various output devices : VDU, printer, plotter, spooling, L.S.</p> <p>f. Storage Devices : Primary and secondary memory; Types of memory capacity and its enhancement; Memory devices and comparisons; Auxiliary storage, tapes, disks (magnetic and optical); various devices and their comparison.</p> <p>g. System Software - Role of Software, Different System Software : O.S., utilization element of O.S. - Its types and variations; DOS and windows.</p> <p>h. Computer and Networks : Need of communication; Data transmission; Baud; Bandwidth; Communication Channel; Multiplexing; Basic network concepts; O.S.I. model; Types of topologies; LAN, WAN, Client server concept.</p>	<p>complements, addition subtraction; Conversion from one system to another; Logic Gates, truth table and applications minimisation, and K-maps.</p> <p>c. Computer Processing System : Definition of computer; Hardware/Software concepts; Generation of computers; Types of computers; Elements of computer; CPU and its functions, Various computer systems.</p> <p>d. I/O devices : Basic concepts of I/O devices; Various input devices Keyboard, mouse; MICR, OCR, microphones.</p> <p>e. Various output devices : VDU, printer, plotter, spooling, L.S.</p> <p>f. Storage Devices : Primary and secondary memory; Types of memory capacity and its enhancement; Memory devices and comparisons; Auxiliary storage, tapes, disks (magnetic and optical); various devices and their comparison.</p> <p>g. System Software - Role of Software, Different System Software : O.S., utilization element of O.S. - Its types and variations; DOS and windows.</p> <p>h. Computer and Networks : Need of communication; Data transmission; Baud; Bandwidth; Communication Channel; Multiplexing; Basic network concepts; O.S.I. model; Types of topologies; LAN, WAN, Client server concept.</p>	
<p>UNIT-III Computer-based Business Applications</p> <p>a. Word Processing : Meaning and role of word processing</p>	<p>UNIT-III Computer-based Business Applications</p> <p>a. Word Processing : Meaning and role of word processing</p>	

<p>in creating of documents, editing, formatting, and printing documents, using tools such as spelling check, thesaurus, etc. in word processors (MS-Word).</p> <p>b. Electronic Spreadsheet : Structure of spreadsheet and its applications to accounting, finance, and marketing functions of business; Creating a dynamic/sensitive worksheet ; Concept of absolute and relative cell reference; Using builtin functions; Goal seeking and solver tool; Using graphics and formatting of worksheet; Sharing data with other desktop applications; Strategies of creating error-free worksheet (MS-Excel, Lotus 123). Practical knowledge on Wings Accounting (Software).</p> <p>c. Programming under a DBMS environment : The concept of data base management system; Data field, records, and files, Sorting and indexing data; Searching records, designing queries, and reports; Linking of data files ;Understanding programming environment in DBMS; Developing menu driven applications in query language (MS-Access).</p>	<p>in creating of documents, editing, formatting, and printing documents, using tools such as spelling check, thesaurus, etc. in word processors (MS-Word).</p> <p>b. Electronic Spreadsheet : Structure of spreadsheet and its applications to accounting, finance, and marketing functions of business; Creating a dynamic/sensitive worksheet ; Concept of absolute and relative cell reference; Using builtin functions; Goal seeking and solver tool; Using graphics and formatting of worksheet; Sharing data with other desktop applications; Strategies of creating error-free worksheet (MS-Excel, Lotus 123). Practical knowledge on Wings Accounting (Software).</p> <p>c. Programming under a DBMS environment : The concept of data base management system; Data field, records, and files, Sorting and indexing data; Searching records, designing queries, and reports; Linking of data files ;Understanding programming environment in DBMS; Developing menu driven applications in query language (MS-Access).</p>	
<p>UNIT-IV Electronic Data Interchange (EDI) Introduction to EDI; Basics of EDI; EDI standards; Financial EDI (FEDI); FEDI for international trade transaction; Applications of EDI; Advantages of EDI; Future of EDI.</p>	<p>UNIT-IV Electronic Data Interchange (EDI) Introduction to EDI; Basics of EDI; EDI standards; Financial EDI (FEDI); FEDI for international trade transaction; Applications of EDI; Advantages of EDI; Future of EDI.</p>	
<p>UNIT-V The Internet and its Basic Concepts Internet-concept, history development in India; Technological foundation of internet;</p>	<p>UNIT-V The Internet and its Basic Concepts Internet-concept, history development in India; Technological foundation of internet;</p>	

<p>Distributed computing; Client-server computing; Internet protocol suite; Application of distributed computing; Client-server computing; Internet protocol suite in the internet environment; Domain Name System (DNS(; Domain Name Service (DNS); Generic top-level domain (gTLD); Country code top-level domain (ccTLD); - India; Location of second-level domains; IP addresses; Internet protocol; Applications of Internet in business, education, governance, etc. Information System Audit Basic idea of information audit; Difference with the traditional concepts of audit; Conduct and applications of IS audit in internet environment.</p>	<p>Distributed computing; Client-server computing; Internet protocol suite; Application of distributed computing; Client-server computing; Internet protocol suite in the internet environment; Domain Name System (DNS(; Domain Name Service (DNS); Generic top-level domain (gTLD); Country code top-level domain (ccTLD); - India; Location of second-level domains; IP addresses; Internet protocol; Applications of Internet in business, education, governance, etc. Information System Audit Basic idea of information audit; Difference with the traditional concepts of audit; Conduct and applications of IS audit in internet environment.</p>	
---	---	--

Suggested Reading :

1. Agrawala Kamlesh N. and Agarwala Deeksha : Business on the Net - Introduction to Ecommerce, Macmillan India, New Delhi.
2. Agarwala Kamlesh, N. and Agarwala Deeksha : Bulls, Bears and The mouse; and introduction to On-line Service Market Trading; Macmillan India, New Delhi.
3. Agarwala Kamlesh, N. and Agarwala Prateek Amar; WAP the Net; An Introduction on Wireless Application Protocol; Macmillan India, New Delhi.
4. Bajaj Kamlesh K. and Nag Debjanl : E-Commerce; The cutting Edge of Business; Tata McGraw Hill, New Delhi.
5. Edwards, Ward and Bytheway : The Essence of Information Systems; Prentice Hall, New Delhi.
6. Garg & Srinivasan : Work Book on Systems Analysis & Design; Prentice Hall New Delhi.
7. Kanter : Managing with Information; Prentice Hall New Delhi.
8. Minoli Daniel, Minoli Emma : Web Commerce Technology Handbook; Tata McGraw Hill,

New Delhi.

9. Minoli Daniel : Internet & Internet Engineering; Tata McGraw Hill, New Delhi.

10. Yeats : Systems Analysis & Design; Macmillan India, New Delhi.

11. Goyal : Management information System; Macmillan India, New Delhi.

12. Timothy J O'Leary : Microsoft Office 2000; Tata McGraw Hill, New Delhi.

B.COM PART III

OPTIONAL GROUP C (E-Commerce Area)

TITLE OF PAPER - ESSENTIAL OF E-COMMERCE

PAPER – II

OBJECTIVE

The objective of this course is to familiarize the students with the basics of e-commerce and to comprehend its potential.

M.M. 75

Present syllabus	Proposed syllabus	Remark
UNIT-I Internet and Commerce : Business operations; E-Commerce practices; Concepts b2b,b2c, b2g, g2h; Benefits of e-commerce to organization, consumers, and society; Limitation of e-commerce; Management issues relating to e-commerce. Operations of E-Commerce : Credit card transaction; Secure Hypertext Transfer Protocol (SHTTP); Electronic payment systems; Secure electronic transaction (SET); Set's encryption; Process; Cybercash; Smart cards; Indian payment models.	UNIT-I Internet and Commerce : Business operations; E-Commerce practices; Concepts b2b,b2c, b2g, g2h; Benefits of e-commerce to organization, consumers, and society; Limitation of e-commerce; Management issues relating to e-commerce. Operations of E-Commerce : Credit card transaction; Secure Hypertext Transfer Protocol (SHTTP); Electronic payment systems; Secure electronic transaction (SET); Set's encryption; Process; Cybercash; Smart cards; Indian payment models.	No change
UNIT-II Applications in B2C : Consumer's shopping procedure on the internet; Impact on disintermediation and re-intermediation; Global market; Strategy of traditional department stores; Products in b2c model; Success factors of e-brokers; Broker based services on-line; Online travel tourism services; Benefits and impact of e-commerce on travel industry; Real estate market; Online stock trading and its benefits; Online	UNIT-II Applications in B2C : Consumer's shopping procedure on the internet; Impact on disintermediation and re-intermediation; Global market; Strategy of traditional department stores; Products in b2c model; Success factors of e-brokers; Broker based services on-line; Online travel tourism services; Benefits and impact of e-commerce on travel industry; Real estate market; Online stock trading and its benefits; Online	No change

banking and its benefits; Online financial services and their future; Educations benefits, implementation, and impact.	banking and its benefits; Online financial services and their future; Educations benefits, implementation, and impact.	
UNIT-III Applications in B2B; Applications of b2b, Key technologies for b2b; Architectural models of b2b; Characteristics of the supplier-oriented marketplace, buyer-oriented marketplace, and intermediary-oriented marketplace; Benefits of b2b on procurement re-engineering; Just in Time delivery in b2b; Internet-based EDI from traditional EDI; Integrating EC with back-end information systems; Marketing issues in b2b.	UNIT-III Applications in B2B; Applications of b2b, Key technologies for b2b; Architectural models of b2b; Characteristics of the supplier-oriented marketplace, buyer-oriented marketplace, and intermediary-oriented marketplace; Benefits of b2b on procurement re-engineering; Just in Time delivery in b2b; Internet-based EDI from traditional EDI; Integrating EC with back-end information systems; Marketing issues in b2b.	No change
UNIT-IV Applications in Governance : EDI in governance; E-government; E-governance applications of the internet; Concept of government to business, business to government and citizen-to-government; E-governance models; Private sector interface in e-governance.	UNIT-IV Applications in Governance : EDI in governance; E-government; E-governance applications of the internet; Concept of government to business, business to government and citizen-to-government; E-governance models; Private sector interface in e-governance.	No change
UNIT-V Emerging Business Models : Retail model; Media model; Advisory model, Mode-toorder manufacturing model; Do-it yourself model; Information service model; Emerging hybrid models; Emerging models in India.	UNIT-V Emerging Business Models : Retail model; Media model; Advisory model, Mode-toorder manufacturing model; Do-it yourself model; Information service model; Emergin hybrid models; Emerging models in India. Security and Legal aspects of E-commerce.	Added Security and Legal aspects of E-commerce.

Suggested Reading :

1. Agarwala Kamlesh. N. and Agarwala Deekhsa : Bridge to Online Storefornt; Macmillan India, New Delhi.

2. Agarwala Kamlesh. N. and Agarwala Deeksha : Business on the Net Introduction to the E-commerce; Macmillan India New Delhi.
3. Agarwala Kamlesh N. and Agarwala Deeksha : Bulls, Bears and The Mouse : An Introduction to Online Stock Market Trading; Macmillan India New Delhi.
4. Tiwari Dr. Murli D. : Eductaion and E-Governance; Macmillan India, New Delhi.
5. Minoli Daniel, Minoli Emma : Web Commerce Technology Handbook; Tata McGraw Hill, New Delhi.
6. Minoli Deniel, Internet & Internet Engineering : Tata McGraw Hill, 1999.
7. Bhatnagar Subhash and Schware Robert (Eds) : Information and Communication Technology in Development; Sage Publications India, New Delhi.
8. Amor, Daniel : E-business R eevaluation, The : Living and Working in an Interconnected World; Prentice Hall, U.S.
9. Afuah, A., and Tuccu, C.: Internet usiness models and Strategies; McGraw Hill, New York.

B.COM PART III

OPTIONAL GROUP D (Money Banking & Insurance Area)

TITLE OF PAPER FUNDAMENTAL OF INSURANCE

PAPER – I

OBJECTIVE

This course enables the students to know the fundamentals of insurance.

M.M. 75

Present syllabus	Proposed syllabus	Remark
UNIT-I Introduction to Insurance : Purpose and need of insurance; Insurance as a social security tool; Insurance and economic development.	UNIT-I Introduction to Insurance : Purpose and need of insurance; Insurance as a social security tool; Insurance and economic development.	No change
UNIT-II Fundamentals of Agency Law : Definiton of an agent; Agents regulations; Insurance intermediaries; Agents Compensation.	UNIT-II Fundamentals of Agency Law : Definiton of an agent; Agents regulations; Insurance intermediaries; Agents compensation.	No change
UNIT-III Procedure for Becoming an Agent : Prerequisite for obtaining a license; Duration of license; Cancellation of incense; Revocation or suspension/termination of agent appointment; Code of conduct; Unfair practices. Functions of the Agent : Proposal form and other forms for grant of cover; Financial and medical underwriting; Material information; Nomination and assignment; Procedure regarding settlement of policy claims.	UNIT-III Procedure for Becoming an Agent : Prerequisite for obtaining a license; Duration of license; Cancellation of incense; Revocation or suspension/termination of agent appointment; Code of conduct; Unfair practices. Functions of the Agent : Proposal form and other forms for grant of cover; Financial and medical underwriting ; Material information; Nomination and assignment; Procedure regarding settlement of policy claims.	No change
UNIT-IV Company Profile : organizational set-up of the company; Promotion strategy; Market share; Important activities; Structure; Product; Actuarial profession; Product pricing actuarial aspects; Distribution channels.	UNIT-IV Company Profile : organizational set-up of the company; Promotion strategy; Market share; Important activities; Structure; Product; Actuarial profession; Product pricing actuarial aspects; Distribution channels.	No change
UNIT-V Fundamentals/Principles of Life insurance/ Marine /Fire /Medical/General Insurance; Contracts of various kinds; Insurable Interest.	UNIT-V Fundamentals/Principles of Life insurance/ Marine /Fire /Medical/General Insurance; Contracts of various kinds; Insurable Interest. Online insurance procedure	Added Online insurance procedure

Suggested Reading :

1. Mishra M.N. : Insurance Principle and Practice; S. Chand and Co., New Delhi.
2. Insurance Regulatory Development Act. 1999.
3. Life Insurance Corporation Act. 1956.
4. Gupta OS : Life Insurance; Frank brothers, New Delhi.
5. Vinayakam N., Radhaswamy and Vasudevan SV : Insurance - Principles and Practice, S. Chand and Co. New Delhi.
6. Mishra MN : Life Insurance Corporation of India, Vols I, II & III; Raj Books, Jaipur.
7. Balchand Shriwastava, Agra.
8. Dr. M.L. Singhai, RAmesh Book Depot, Jaipur.

B.COM PART III

OPTIONAL GROUP D

TITLE OF PAPER - MONEY & BANKING SYSTEM

OBJECTIVE

This course enables the students to know the working of the Indian Money & banking system.

(Money Banking & Insurance Area)

PAPER – II

M.M. 75

Present syllabus	Proposed syllabus	Remark
UNIT-I Money : Function, Alternative Measures to money supply in India - their different components. Meaning and changing relative importance of each.	UNIT-I Money : Function, Alternative Measures to money supply in India - their different components. Meaning and changing relative importance of each.	No change
UNIT-II Indian Banking System : Structure and organization of banks; Reserve Bank of India; Apex banking Institutions; Commercial banks; Regional rural banks; Cooperative banks; Development banks.	UNIT-II Indian Banking System : Structure and organization of banks; Reserve Bank of India; Apex banking Institutions; Commercial banks; Regional rural banks; Cooperative banks; Development banks.	No change
UNIT-III Banking Regulation Act, 1947 : History; Social control; Banking Regulation Act as applicable to banking companies and public sector banks; Banking Regulation Act as applicable to Cooperative banks.	UNIT-III Banking Regulation Act, 1947 : History; Social control; Banking Regulation Act as applicable to banking companies and public sector banks; Banking Regulation Act as applicable to Cooperative banks.	No change
UNIT-IV Regional Rural and Cooperative Banks in India : Functions; Role of regional rural and cooperative banks in rural India; Progress and performance.	UNIT-IV Regional Rural and Cooperative Banks in India : Functions; Role of regional rural and cooperative banks in rural India; Progress and performance.	No change
UNIT-V Reserve Bank of India : Objectives; Organization ; Functions and working; Monetary policy; Credit control measures and their effectiveness.State Bank of India, Project History, Objectives, Functions & Organization working & progress.	UNIT-V Reserve Bank of India : Objectives; Organization ; Functions and working; Monetary policy; Credit control measures and their effectiveness. State Bank of India, Project History, Objectives, Functions & Organization working & progress. Internet banking system	Added Internet banking system

Suggested Reading :

1. Basu A.K. : Fundamentals of Banking-Theory and Practice; A Mukherjee and Co., Calcutta.
2. Sayers R.S. : Modern Banking : Oxford University Press.
3. Panandikar S.G. And Mithani D.M. : Banking in India; orient Longman.
4. Reserve Bank of India : Functions and Working.
5. Dekock : Central Banking; Crosby lockwood Staples, London.
6. Tannan M.L. : Banking - Law and Practice in India : India Law House, New Delhi.
7. Knubchandani B.S. : Practice and Law of Banking; Macmillan, New Delhi.
8. Shekhar and Shekhar : Banking Theory and Practice; Vikas Publishing House, New Delhi.
9. Harishchandra Sharma.
10. M.L. Singhai.

COMPUTER APPLICATION
MARKS DISTRIBUTION

Theory Paper	Paper - I	Total Marks - 50
	Paper - II	Total Marks - 50
Every unit of Theory Paper will consists of 10 Marks.		
Practical Paper		Total Marks - 50
Practical Marks Distribution :	Viva - 10	
	Internal - 15	
	Practical - 25	
Practical Test will consist of 3 Hrs.		<u>Total Marks - 150</u>

PAPER - I

PROGRAMMING IN VISUAL BASIC

(Paper Code-1165)

UNIT-I Introduction to Visual Basic, Programs, Variables

Editions of Visual Basic, Event Driven Programming, Terminology, Working environment, project and executable files, Understanding modules, Using the code editor window, Other code navigation features, Code documentation and formatting, environment options, code formatting option automatic code completion features. Introduction to objects, Controlling objects, Properties, methods and events, Working with forms, interacting with the user: MsgBox function, InputBox function, Code statements, Managing forms, Creating a program in Visual Basic, Printing, Overview of variables, User-defined data types, constants working with procedures, Working with dates and times, Using the Format Function, Manipulating text strings.

UNIT-II Controlling Program Execution, Working with Control

Comparison and logical operators, If...Then statements, Select Case Statements looping structures, Using Do...Loop structures, For...Next statement, Exiting a loop. Types of controls, Overview of standard controls, ComboBox and ListBox, OptionButton and Frame controls Menu, Status bars, Toolbars, Advanced standard controls, ActiveX controls, Insertable objects, Arrays, Dynamic Arrays.

UNIT-III Procedure, Function Error Trapping & Debugging

Procedure, Function, call by value, call by reference, Type definition, with object, Validation, Overview of run-time errors, error handling process, The Err object, Errors and calling chain, Errors in an error-handling routine, Inline error handling, Error handling styles, General error-trapping options Type of errors, Break mode Debug toolbar, Watch window, Immediate window, Local window, Tracing Program flow with the Call Stack.

B.Com. -Part-III

Sunder
11-06-2018
(Dr. Sanjay Kumar)

Anuj
11/6/18
(Dr. A.K. Devedi)

Gaur
11/06/18
(L.K. Gaur)

ymp
11-06-18
Hari Kantan Prasad Tangle
(Dr. J. D. Singh Pansari)

UNIT-IV Sequential and Random Files :

Saving data to file, basic filling, data analysis and file, the extended text editor, File organization Random access file, The design and coding, File Dialog Box, Picture Box, Image box, Dialog Box, using clipboard, Copy, Cut, Paste of Text & Picture in Clipboard, Use of Grid Control Multiple document interface, Single document interface.

UNIT-V Data Access Using the ADO Data Control & Report Generation

Overview of ActiveX data Objects, Visual Basic data access features, Relational database concepts Using the ADO Data control to access data, Overview of DAO, RDO, Data Control, structured query language (SQL), Manipulating data Using Data Form Wizard. Overview of Report, Data Report, Add groups, Data Environment, Connection to database Introduction to Crystal Report Generator.

BOOK REFERENCE :

- 1 Visual Basic Programming - Reeta Sahu, B.P.B. Publication.
- 2 Mastering in Visual Basic - By BFB Publications.
- 3 Visual Basic Programming - Mark Brit.

PAPER - II

SYSTEM ANALYSIS, DESIGN & MIS

(Paper Code-1166)

UNIT-I Introduction -

Systems Concepts and the information systems environment : Definition of system, Characteristics of system, elements of system, types of system, The system Development life cycle : consideration of candidates system. The Role of system Analyst : Introduction, the multiphase role of the analyst, the analyst / user interface, the place of the analyst in the MIS Organization.

UNIT-II System Analysis, Tools of Structured Analysis, Feasibility Study-

System Planning and initial investigation : Basis for planning in systems analysis, initial investigation, fact finding, fact analysis, determination of feasibility.

Information Gathering : Kind of information, Information gathering tools.

Structured Analysis, Flow chart, DFD, Data Dictionary, Decision Tree, Structured English, Decision Table. System Performance, Feasibility Study. Data Analysis.

UNIT-III System Design & System Implementation -

The process of Design Methodologies. Input Design, Output Design, Form Design, File Structure, File organization, data base design, System Testing, the test plan, quality assurance, data processing auditor. Conversion, Post implementation review, Software Maintenance.

B. Com. -Part-III

Sumit
11-06-2018

Dr. Anuj Kumar

Anuj
11/06/18
(Dr. A.K. Desai)

Garul
11/06/18
(L.K. Garul)

(23)
Har
11-06-18
Hari Shankar Prasad

Har
11/6/18
Dr. J. J. Singh

UNIT-IV Introduction to MIS & Other Subsystem-

Evolution of MIS, Need of MIS, Definition & Benefits of MIS, Characteristic, Role component of Information system, data base as a future of MIS, Decision making, logic of Management Information system. Structure of MIS.

UNIT-V Information System Concept -

Difference between Transaction Processing. System (TPS) and Management Information System, How MIS works, MIS and Information Resource Management, Quality information Building Blocks for the information system, information system concept, Other system characteristic (Open & Closed System), difference between MIS & Strategic System, Adaptive system, Business function information system.

BOOK REFERENCE :

- 1 System Analysis and Design - Elias M. Awad.
- 2 System Analysis and Design - Alan Dennis & Barbara Haley Wixco.
- 3 Management Information systems - C.S.V. Murthy, Himalaya Publication House.

PAPER - III

PRACTICAL EXERCISES BASED ON PAPER I & II

Practicals to be done -

- 1 At least 20 practical - exercises covering the contents of paper - I (e.g. Designing calculator, sorting of elements, Generating Fibonacci series)
- 2 Design the Project on one of the following - Application Software / Website Design/ Accounting software / Inventory control System / System Software & other (e.g. Library Management System, Medical management, Stock Management, Hotel Management, Website for your institute / Website of any Organization)
- 3 The Project Report cover the following topic - Objective, Hardware & Software Requirements, Analysis, Design, Coding, input forms, testing, Reports, Future enhancement of s/w.
- 4 Practical exam is based on the Project Demonstration & report.

B.Com. -Part-III

Suman
11-06-2018

Dr. Anuj Kumar

Anuj
11/6/18
(Dr. A.K. Dairvedi)

Gaur
11/06/18
(L.K. Gaur)

Jha
11.06.18
Hari Shankar Prasad Tande
1/Dr. J. D. Singh

**संशोधित पाठ्यक्रम – बी.ए. प्रथम वर्ष के अंतर्गत
विषय – नृत्य (भरत नाट्यम)**

बी.ए. भाग (1) के लिये इस विषय में प्रायोगिक और सैद्धांतिक दो भाग होंगे। प्रायोगिक 50 अंक एवं सैद्धांतिक 100 अंक का होगा। इस हेतु 50-50 अंक के दो प्रश्नपत्र होंगे। प्रत्येक वर्ष के पूर्णांक कुल मिलाकर 150 अंक के होंगे।

क्र	विवरण	पूर्णांक	उत्तीर्णांक
1	सैद्धांतिक प्रथम प्रश्न पत्र	50	17
2	सैद्धांतिक द्वितीय प्रश्न पत्र	50	17
3	प्रायोगिक	50	17
योग		150	51

सैद्धांतिक (विस्तृत पाठ्यक्रम)

प्रथम प्रश्न पत्र

**शीर्षक – नृत्य का इतिहास एवं सामान्य अध्ययन
पेपर कोड (0153)**

1. नृत्य का इतिहास – सिंधु सभ्यता, वैदिक काल, रामायण एवं महाभारत काल में नृत्य की स्थिति।
2. पुराणों के आधार पर – उमाशकर एवं नटवर श्री कृष्ण की नृत्य संबंधी कथायें – त्रिपुरडाह, उमा तांडव, मोहिनी-भस्मासुर, माखन लीला, कालिया दमन, रासलीला।
3. नृत्य का अन्य ललित कलाओं से संबंध – संगीत, साहित्य, चित्रकला एवं मूर्तिकला से संबंध।
4. नाट्य की उत्पत्ति कथा – भारत के नाट्यशास्त्र के प्रथम अध्याय में वर्णित।
5. लोकधर्मी नाट्य परंपरा – निम्न की संक्षिप्त जानकारी –
 1. रामलीला
 2. रासलीला
 3. भवाई
 4. माच

सैद्धांतिक (विस्तृत पाठ्यक्रम)
द्वितीय प्रश्न पत्र
शीर्षक – शास्त्रीय नृत्य सिद्धान्त
पेपर कोड (0154)

1. ताल की प्रारंभिक जानकारी – 1. ताल के दस प्राण।
2. लय – विलंबित, मध्य एवं द्रुत लय।
2. संक्षिप्त जीवन परिचय – भरत मुनि, आचार्य नंदिकेश्वर।
3. नृत्य के अभ्यास से शारीरिक एवं मानसिक लाभ।
4. भारतीय नाट्य परंपरा में गुरुवंदना का महत्व।
5. छत्तीसगढ़ी नृत्यों का सामान्य परिचय – 1. करमा 2. ददरिया
3. सुवा 4. रीना, परब

प्रायोगिक

1. मौखिक मुद्रा प्रदर्शन – (अभिनय दर्पण के अनुसार)
(1) शिवस्तुति (2) शिरोभेद (3) ग्रीवाभेद
(4) दृष्टिभेद (5) असंयुक्त हस्त (6) संयुक्त हस्त
2. कार्यक्रम विभाग – (1) शारीरिक अभ्यास
(2) आरंभिक –05 अङ्क भेद
(पद + हस्त संचालन तीन काल में)
(3) पूजा नृत्य
(4) अलारिपु (तिस्त्रजाति)

REVISED SYLLBUS

B. A. Part- I (Economics)

Subject : Micro Economics, Paper-I (Code: 0111)

UNIT 1

Introduction - Definitions Nature and scope of Economics, Methodology in Economics, Utility - Cardinal and Ordinal approaches, Indifference curve, Consumer's equilibrium, Giffin goods, Demand - Law of Demand, Elasticity of demand Consumer's surplus

UNIT 2

Theory of production and cost, Production decision, Production function, Iso-quant, Factor substitution, Law of variable proportions, Returns to scale, Economies of scale, Different concepts of cost and their interrelation, Equilibrium of the firm.

UNIT 3

Market structure-perfect and imperfect markets, Equilibrium of a firm-Perfect competition, Monopoly and price discrimination, Monopolistic competition, Duopoly, Oligopoly, controlled and administered prices

UNIT 4

Factor pricing-Marginal productivity theory of distribution, Euler's theorem, Theories of wage determination, wages and collective bargaining, wage differentials, Rent - Scarcity Rent, differential rent, Quasi rent, Modern Rent Theory, Interest Classical and Keynesian Theories, Modern Theory, Profits - Innovation, Risk bearing and uncertainty theories

UNIT 5

Welfare economics: , What welfare economics is about ?, Role of value judgments in welfare economics, Pigou's contribution in the field of welfare economics, Concept and condition of Pareto optimality, New welfare economics: Kaldor-Hicks welfare criterion, Scitovsky paradox, Social welfare function and social choice: Bergson-Samuelson social welfare function, Prof. Amartya Sen's critique, Arrow impossibility theorem

References:

1. Bach, G. L. (1977) "Economics, " Prentice Hall of India, New Delhi.
2. Gauld, J.P. and Edward P. L. (1996), "Microeconomic Theory," Richard Irwin, Homewood

. 3. Henderson J. and R. E. Quandt (1980), "Microeconomic Theory : A Mathematical Approach", McGraw Hill, New Delhi.

4. Heathfield and Wibe (1987), " An Introduction to Cost and Production Functions", Macmillan. London.

5. Koutsoyiannis, A. (1990), " Modern Microeconomics" , Macmillan.

6. Lipsey, R. G. and K. A. Chrystal (1999) "Principles of Economics ", (9th Edition), Oxford University Press, Oxford. B.A.-Part-I (21) P

REVISED SYLLBUS

B. A. Part- I (Economics)

Subject : Indian Economy , Paper-II (Code: 0112)

UNIT 1

Pre and post independent Indian economy: A short introduction of economic policies of British India, State of economy at the time of independence, Planning exercise in India-Planning in India through different five Year Plans, The planning commission and NITI Aayog, Growth and development in pre-reform period, New Economic Reforms: Liberalization, Privatization and Globalization, Growth, development and structural change in post-reform period.

UNIT 2

Population and human development: Demographic trends and issues of education, health, malnutrition and migration. Growth and distribution: Trends and policies in poverty, inequality, unemployment and occupational distribution, International comparison in human development and poverty reduction

UNIT 3

Agriculture: Nature and importance, Trends in agriculture production and productivity, factors determining productivity, Land reforms, new agriculture strategies and green revolution, rural credit, Agricultural marketing, natural resources and infra-structure development: Performance, problems and policies, MUDRA yojana.

UNIT 4

Industry: Growth and productivity, Industrial policy and reforms, Growth and problems of small and cottage scale industries, Role of public sector enterprises in India's industrialization. Trends and performance in services.

UNIT 5

External Sector - Role of foreign trade, Trends in exports and imports, Composition and direction of India's foreign trade, Export promotion measures and the new trade policies, Recent macroeconomic scenario: National Income, investment, saving and inflation, Current macroeconomic policies and their impact, fiscal policies and monetary policy.

References

1. Uma Kapila, "Indian Economy : Performance and Policies," published by Academic Foundation.
2. Dutta and Sundram, "Indian Economy', S. Chand Publications.

3. Mishra and Puri, "Indian Economy," Himalaya Publishing House.
4. Economic Survey of India: various Issues, Published by Government of India.

B.A. /B.Sc. Part I

PAPER - I PHYSICAL GEOGRAPHY

**Max. Marks: 50
(Paper Code-0117)**

- Unit I** The Nature and Scope of Physical Geography. Origin of the Earth, Geological Time Scale, Earth's Interior, Continental Drift Theory (Wegner), Plate Tectonics, Isostasy.
- Unit II** Earth movements: Earthquakes and Volcanoes. Rocks, Weathering, Erosion, and Normal cycle of erosion, Evaluation of landscapes- Fluvial, Arid, Glacial, Karts and Coastal landscape.
- Unit III** Elements of Weather and Climate, Composition and Structure of the Atmosphere. World patterns of Atmospheric Temperature, Pressure, and Wind.
- Unit IV** Atmospheric Moisture, and Disturbances, Climatic Classification (Koppen and Thornthwait) types, characteristics and World patterns.
- Unit V** Surface relief of Pacific Ocean, Atlantic Ocean, and Indian Ocean. Distribution of Temperature and Salinity of oceans and seas, Currents and Tides, Ocean Deposits and Coral Reefs, and Oceanic Resources.

Books Recommended:

1. Barry, R. G. and Chorley, R. J. (1998): Atmosphere, Weather and Climate. Routledge, London.
2. Bryant, H. Richard (2001): Physical Geography Made Simple, Rupa and Company. New Delhi
3. Bunnett, R.B. (2003): Physical Geography in Diagrams, Fourth GCSE edition, Pearson Education (Singapore) Private Ltd.
4. Garrison, T. (1998): Oceanography, Wordsworth Company., Belmont.
5. Lake, P. (1979): Physical Geography (English and Hindi editions), Cambridge University Press, Cambridge.
6. Lal, D.S. 1993 : Climatology, 3rd edition, Chaitanya Pub. House, New Delhi
7. Leong Goh Cheng (2003): Certificate Physical and Human Geography, Oxford University Press, New Delhi.
8. Monkhouse, F.J. (1979): Physical Geography. Methuen, London
9. Singh, S. (2003): Physical Geography. (English and Hindi editions.). Prayag Pustak Bhawan, Allahabad;
10. Trewartha, G.T., Robinson, A.H., Hammond, E.H., and Horn, A.T. (1976/1990): Fundamentals of Physical Geography, 3rd edition. MacGraw-Hill, New York.
11. Singh, M.B. (2001): *Bhoutik Bhugol*, Tara Book Agency, Varanasi
12. Strahler, A.N. and Stahler, A.M. (1992): Modern Physical Geography. John Wiley and Sons, New York.

B.A. /B.Sc. Part I

PAPER - II HUMAN GEOGRAPHY

Max. Marks: 50

(Paper Code-0118)

- Unit I** Definition and Scope of Human Geography. Man - environment relationship; Determinism, Possibilism, and Probabilism; Human Development Index (HDI).
- Unit II** Classification of Human Races – their Characteristics and Distribution; Human adaptation to environment: Eskimos, Bushman, Pigmy, Gond, Masai, and Naga.
- Unit III** Growth, Density and Distribution of World Population and factors influencing Spatial distribution; Over , Under, and Optimum Population; Migration of Population. .
- Unit IV** Settlements – Urban Settlements: Urbanization, Evolution and Classification, Trends of Urbanization.

Rural settlements: Characteristics, Types and Regional Pattern, Rural Houses in India - Types, Classification and Regional Pattern.
- Unit V** Issues – Global Warming, Climate Change, Deforestation, Desertification, Air, Water and Soil Pollution.

Books Recommended:

1. Chisholm, M. (1985): Human Geography, 2nd edition, Penguin Books, London.
2. De Blij, H.J.(1996): Human Geography: Culture, Society and Space,. 2nd edition. John Wiley and Sons, New York,
3. Fellman, J. D., Arthur, G., Judith, G., Hopkins, J. and Dan, S. (2007): Human Geography: Landscapes of Human Activities. McGraw-Hill, New York. 10th edition.
4. Haggett, P. (2004): Geography: A Modern Synthesis. 8th edition, Harper and Row, New York.
5. Huggett, R. J. (1998): Fundamentals of Biogeography, Routledge, London.
6. Hussain, M. (1994): Human Geography, Rawat Publications, Jaipur.
7. Johnston, R. J., Gregory, D., Pratt, G. and Watts, M. (2009): The Dictionary of Human Geography. 5th edition, Basil Blackwell Publishers, Oxford.
8. Kaushik, S.D. and Sharma, A.K. (1996): Principles of Human Geography (in Hindi), Rastogi Publication, Meerut.
9. Norton, W. (2008): Human Geography, Oxford University Press, New York. 5th ed.
10. Saxena, H. M. (2000): Environmental Management. Rawat Publications., Jaipur and New Delhi.
11. Singh, K. N. and Singh, J. (2001): *Manav Bhugol*. Gyanodaya Prakashan, Gorakhpur. 2nd edition.
12. Singh, L.R. (2005): Fundamentals of Human Geography, Sharda Pustak Bhawan, Allahabad
13. Smith, D. M.(1977): Human Geography- A Welfare Approach, Edward Arnold (Publishers) Ltd.,London
14. Stoddard, R.H., Wishart, D.J. and Blouet, B.W. (1986): Human Geography. Prentice-Hall, Englewood Cliffs, New Jersey.

B.A. /B.Sc. Part I

**PAPER - III
PRACTICAL GEOGRAPHY
Max. Marks: 50**

SECTION A

CARTOGRAPHY AND STATISTICAL METHODS (M.M. 25)

Unit I Scale: Statement Scale, Representative Fraction (R.F.), Linear scale – Simple, Diagonal, Comparative, and Time Scales.

Unit II Contour: Methods of showing relief; Hachures, Contours; Representation of different landforms by contours.

Unit III Graph and Diagram: Line graph, Bar Diagram (Simple and Compound), Circle Diagram, Pie Diagram

Unit IV Statistical Technique: Mean, Median and Mode

SECTION B

SURVEYING - (M.M. 15)

Unit V Chain and Tape Survey. Triangulation method, Open Traverse and Closed Traverse

PRACTICAL RECORD AND VIVA VOCE (M.M. 10)

Books Recommended:

1. Davis, R.E. and Foote, F.S. (1953): Surveying, 4th edition, McGraw Hill Publication, New York
2. Jones, P.A.(1968): Fieldwork in Geography, Longmans, Green and Company Ltd., First Publication, London
3. Monkhouse, F. J. and Wilkinson, F.J. (1985): Maps and Diagrams. Methuen, London
4. Natrajan, V. (1976): Advanced Surveying, B.I. Publications., Mumbai
5. Pugh, J.C. (1975): Surveying for Field Scientists, Methuen and Company Ltd., London, First Publication.
6. Raisz, E. (1962): General Cartography. John Wiley and Sons, New York. 5th edition.
7. Sarkar, A. K. (1997): Practical Geography: A Systematic Approach. Orient Longman, Kolkata.
8. Sharma, J. P. (2001): *Prayogik Bhugol.*, Rastogi Publication, Meerut 3rd. edition.
9. Singh, R.L. and Singh, Rana P.B. (1993): Elements of Practical Geography. (Hindi and English editions). Kalyani Publishers, New Delhi,.
10. Singh, L.R. (2006): Fundamentals of Practical Geography, Sharda Pustak Bhawan, Allahabad.
11. Venkatramaiah, C. (1997): A Text Book of Surveying, Universities Press, Hyderabad.

बी.ए. प्रथम वर्ष

प्राचीन भारतीय इतिहास, संस्कृति तथा पुरातत्व
प्रथम : प्रश्न-पत्र

B.A. Part I Paper I

भारत का राजनीतिक इतिहास (पेपर कोड 0133)
(हड़प्पा संस्कृति से 319 ई. तक)

Political History of India (Harappa Culture to 319 A.D.)

पूर्णांक : 75

उद्देश्य : इस पाठ्यक्रम का उद्देश्य छात्रों को संबंधित कालखण्ड के राजनीतिक इतिहास की समुचित जानकारी देना है।

- इकाई- 1 (1) प्राचीन भारतीय इतिहास के स्रोत (Sources of Ancient Indian History)
(2) हड़प्पा तथा समकालीन ताम्राश्म संस्कृतियों (Harappa and Contemporary Chalcolithic Culture)
(3) वैदिक युग (Vedic Age)
- इकाई- 2 (1) महाजन पद युग (Mahajanpada Age)
(2) मगध साम्राज्य का उत्कर्ष (Rise of Magadha Kingdom)
- इकाई- 3 (1) सिकन्दर का आक्रमण और उसके प्रभाव (Alexander's Invasion and its impact)
(2) मौर्य साम्राज्य का उत्थान और उसके प्रभाव (Rise of Mauryan empire and its impact)
- इकाई- 4 (1) हिन्द-यूनानी (Indo-Greeks)
(2) शुंग (Shungas)
(3) सातवाहन (Satvahanas)
(4) शक-क्षत्रप, पार्थियन (Shak-Kshatrapas, Parthiyan)
(5) खारवेल (Kharvela)
- इकाई- 5 (1) संगम युग (Sangam Age)
(2) कुषाण (Kushanas)
(3) मालव, यौधेय, अर्जुनायन तथा औदुम्बर (Malavas, Youdheyas, Arjunayana and Audumbara)
(4) नागवंश (Nagas)

सहायक ग्रंथ :

- | | |
|--|--|
| 1. एच.सी. रायचौधरी | - प्राचीन भारत का राजनीतिक इतिहास |
| 2. के.ए. नीलकंठ शास्त्री | - दक्षिण भारत का इतिहास |
| 3. कृष्णदत्त बाजपेयी तथा विमलचन्द्र पांडेय | - प्राचीन भारत का इतिहास |
| 4. विमल चन्द्र पांडेय | - प्राचीन भारत का राजनीति तथा सांस्कृतिक इतिहास भाग एक |
| 5. किरन कुमार थप्याल | - सैंधव सम्यता |
| 6. गुलाम, याजदानी (संपा.) | - दकन का इतिहास |
| 7. राजबली पाण्डेय | - प्राचीन भारत |
| 8. H.C. Roycoudhary | - Political History of Ancient India |
| 9. R.C. Majumdar (Ed.) | - The Age of Imperial Unity |
| 10. Romila Thaper | - History of India |
| 11. K.A. Nilkanta Shastry | - History of South India |
| 12. व्ही.डी.झा. सुभिता पाण्डेय, डॉ.ओम प्रकाश | - Ashoka and the declaim of Moury empire |

बी.ए. प्रथम वर्ष
प्राचीन भारतीय इतिहास, संस्कृति तथा पुरातत्व
प्रथम : प्रश्न-पत्र
B.A. Part I Paper II
भारत का राजनीतिक इतिहास (319 ई.से 1300 ई. सन् तक)
Political History of India (From 319 A.D. to 1300 A.D.)

पूर्णांक : 75

उद्देश्य : इस पाठ्यक्रम का उद्देश्य विद्यार्थियों को संबंधित कालखण्ड के राजनीतिक इतिहास का समुचित ज्ञान प्रदान करना है।

- इकाई- 1 (1) गुप्तों की उत्पत्ति एवं प्रारंभिक इतिहास (Rise of Guptas and their early History)
(2) चन्द्रगुप्त प्रथम, रामगुप्त, समुद्रगुप्त (Chandragupta – I, Ramagupta, Samudragupta)
(3) कुमारगुप्त प्रथम, स्कन्दगुप्त (Kumargupta – I, Shandgupta)
(4) वाकाटक राजवंश, गुप्त-वाकाटक सम्बन्ध (Vakataka Dynasty, Gupta Vakataka relation)

- इकाई- 2 (1) परवर्ती गुप्त राजवंश (Later Gupta Rulers)
(2) मौखरी (Maukharis)
(3) वर्धन राजवंश और हर्ष का प्रशासन (Vardhana Dynasty and Administration of Harsha)

- इकाई- 3 (1) बादामी के चालुक्य (Chalukyas of Badami)
(2) कांची के पल्लव (Pallavas of Kanchi)
(3) चोल तथा उनका प्रशासन (Cholas and their administration)

- इकाई- 4 (1) गुर्जर प्रतिहार (Gurjara Pratihara)
(2) राष्ट्रकूट (Rashtrakutas)
(3) पाल (Palas)
(4) गाहड़वाल (Gahadwalas)

- इकाई- 5 (1) चन्देल (Chandela)
(2) परमार (Parmaras)
(3) चाहमान (Chahmanas)
(4) त्रिपुरी के कलचुरि (Kalachuris of Tripuri)
(5) रतनपुर के कलचुरि (Kalachuris of Ratanpur)

अनुशंसित पुस्तके :

- | | |
|---|---|
| 1. उदयनारायण राय | – गुप्त राजवंश तथा उसका इतिहास (नया संस्करण) 1988 |
| 2. श्री राम गोयल | – भारत का राजनैतिक इतिहास भाग 2 एवं 3 |
| 3. श्री राम गोयल | – गुप्त साम्राज्य का इतिहास |
| 4. Ashvini Agrawal | - Rise and Fall of the imperial Gupta |
| 5. विशुद्धानंद पाठक | – उत्तर भारत का राजनीतिक इतिहास |
| 6. अवध बिहारी लाल अवस्थी | – राजपूत राजवंश |
| 7. डी.सी.गांगुली | – परमार राजवंश |
| 8. भगवती प्रसाद पांथरी | – मौखरी और पुष्यभूमि राजवंश |
| 9. डॉ.के.ए.नीलकंठ शास्त्री | – दक्षिण भारत का इतिहास |
| 10. डॉ.बैजनाथ शर्मा | – हर्षवर्धन |
| 11. R.C. Majumdar & A.D. Pusalkar (Ed.) | - The Classicale Age “The age of Imperial Unity”
The Strangle for Empire |
| 12. Majumdar, Roy Choudhary | - An Advanced History of India Vol. I |

MATHEMATICS

There shall be three compulsory papers. Each paper of 50 marks is divided into five units and each unit carry equal marks.

B.A. Part-I MATHEMATICS

PAPER - I ALGEBRA AND TRIGONOMETRY

UNIT-I Elementary operations on matrices, Inverse of a matrix. Linear independence of row and column matrices, Row rank, column rank and rank of a matrix. Equivalence of column and row ranks. Eigenvalues, eigenvectors and the characteristic equations of a matrix. Cayley Hamilton theorem and its use in finding inverse of a matrix.

UNIT-II Application of matrices to a system of linear (both homogeneous and nonhomogeneous) equations. Theorems on consistency of a system of linear equations. Relation between the roots and coefficients of general polynomial equations in one variable. Transformation of equations. Descartes's rule of signs. Solutions of cubic equations (Cardons method), Biquadratic equation.

UNIT-III Mappings, Equivalence relations and partitions. Congruence modulo n . Definition of a group with examples and simple properties. Subgroups, generation of groups, cyclic groups, coset decomposition, Lagrange's theorem and its consequences. Fermat's and Euler's theorems. Normal subgroups. Quotient group, Permutation groups. Even and odd permutations. The alternating groups A_n . Cayley's theorem.

UNIT-IV Homomorphism and Isomorphism of groups. The fundamental theorems of homomorphism. Introduction, properties and examples of rings, Subrings, Integral domain and fields Characteristic of a ring and Field.

TRIGONOMETRY :

UNIT-V De-Moivre's theorem and its applications. Direct and inverse circular and hyperbolic functions. Logarithm of a complex quantity. Expansion of trigonometrical functions. Gregory's series. Summation of series.

TEXT BOOK :

1. I.N. Herstein, Topics in Algebra, Wiley Eastern Ltd., New Delhi, 1975
2. K.B. Datta, Matrix and Linear Algebra, Prentice Hall of India Pvt. Ltd. New Delhi, 2000.
3. Chandrika Prasad, Text-Book on Algebra and Theory of equations, Pothishala Private Ltd., Allahabad.
4. S.L. Loney, Plane Trigonometry Part II, Macmillan and Company, London.

REFERENCES :

1. P.B. Bhattacharya, S.K. Jain and S.R. Nagpaul, First Course in linear Algebra, Wiley Eastern, New Delhi, 1983.
2. P.B. Bhattacharya, S.K. Jain and S.R. Nagpaul, Basic Abstract Algebra (2 edition), Cambridge University Press, Indian Edition, 1997.
3. S.K. Jain, A. Gunawardena and P.B. Bhattacharya, Basic linear Algebra with MATLAB, Key College Publishing (Springer-Verlag), 2001.
4. H.S. Hall and S.R. Knight, Higher Algebra, H.M. Publications, 1994.
5. R.S. Verma and K.S. Shukla, Text Book on Trigonometry, Pothishala Pvt. Ltd., Allahabad.

B.A. Part-I
MATHEMATICS
PAPER - II
CALCULUS

DIFFERENTIAL CALCULUS :

UNIT-I $\epsilon - \delta$ definition of the limit of a function. Basic properties of limits. Continuous functions and classification of discontinuities. Differentiability. Successive differentiation. Leibnitz theorem. Maclaurin and Taylor series expansions.

UNIT-II Asymptotes. Curvature. Tests for concavity and convexity. Points of inflexion. Multiple points. Tracing of curves in cartesian and polar coordinates.

INTEGRAL CALCULUS:

UNIT-III Integration of transcendental functions. Reduction formulae. Definite integrals. Quadrature. Rectification. Volumes and surfaces of solids of revolution.

ORDINARY DIFFERENTIAL EQUATIONS :

UNIT-IV Degree and order of a differential equation. Equations reducible to the linear form. Exact differential equations. First order higher degree equations solvable for x , y , p . Clairaut's form and singular solutions. Geometrical meaning of a differential equation. Orthogonal trajectories. Linear differential equations with constant coefficients. Homogeneous linear ordinary differential equations.

UNIT-V Linear differential equations of second order. Transformation of the equation by changing the dependent variable/the independent variable. Method of variation of parameters. Ordinary simultaneous differential equations.

TEXT BOOK :

1. Gorakh Prasad, Differential Calculus, Pothishala Private Ltd. Allahabad.
2. Gorakh Prasad, Integral Calculus, Pothishala Private Ltd. Allahabad.
3. D.A. Murray Introductory Course in Differential Equations, Orient Longman (India), 1976.

REFERENCES :

1. Gabriel Klambauer, Mathematical Analysis, Marcel Dekkar, Inc. New York, 1975.
2. Murray R. Spiegel, Theory and Problems of Advanced Calculus, Schaum's outline series, Schaum Publishing Co. New York.
3. N. Piskunov, Differential and Integral Calculus, Peace Publishers, Moscow.
4. P.K. Jain and S.K. Kaushik, An Introduction to Real Analysis, S. Chand & Co. New Delhi, 2000.
5. G.F. Simmons, Differential Equations, Tata Mc Graw Hill, 1972.
6. E.A. Codington, An Introduction to Ordinary Differential Equations, Prentics Hall of India, 1961.
7. H.T.H. Piaggio, Elementary Treatise on Differential Equations and their Applications, C.B.S. Publishe & Distributors, Dehli, 1985.
8. W.E. Boyce and P.O. Diprima, Elementary Differential Equations and Boundary Value Problems, John Wiley, 1986.
12. Erwin Kreyszig, Advanced Engineering Mathematics, John Wiley and Sons, 1999.

B.A. Part-I
MATHEMATICS
PAPER - III
VECTOR ANALYSIS AND GEOMETRY

VECTOR ANALYSIS :

- UNIT-I** Scalar and vector product of three vectors. Product of four vectors. Reciprocal Vectors. Vector differentiation. Gradient, divergence and curl.
- UNIT-II** Vector integration. Theorems of Gauss, Green, Stokes and problems based on these.
- UNIT-III** General equation of second degree. Tracing of conics. System of conics. Confocal conics. Polar equation of a conic.
- UNIT-IV** Sphere. Cone. Cylinder.
- UNIT-V** Central Conicoids. Paraboloids. Plane sections of conicoids. Generating lines. Confocal Conicoids. Reduction of second degree equations.

TEXT BOOKS :

1. N. Saran and S.N. Nigam, Introduction to vector Analysis, Pothishala Pvt. Ltd. Allahabad.
2. Gorakh Prasad and H.C. Gupta, Text Book on Coordinate Geometry, Pothishala Pvt. Ltd., Allahabad.
3. R.J.T. Bell, Elementary Treatise on Coordinate Geometry of three dimensions, Machmillan India Ltd. 1994.

REFERENCES :

1. Murray R. Spiegel, Theory and Problems of Advanced Calculus, Schaum Publishing Company, New York.
2. Murray R. Spiegel, Vector Analysis, Schaum Publishing Company, New York.
3. Erwin Kreyszig, Advanced Engineering Mathematics, John Wiley & Sons, 1999.
4. Shanti Narayan, A Text Book of Vector Calculus, S. Chand & Co., New Delhi.
5. S.L. Loney, The Elements of Coordinate Geometry, Macmillan and Company, London.
6. P.K. Jain and Khalil Ahmad, A Text Book of Analytical Geometry of two Dimensions, Wiley Eastern Ltd., 1994.
7. P.K. Jain and Khalil Ahmad, A Text Book of Analytical Geometry of three Dimensions, Wiley Eastern Ltd., 1999.
8. N. Saran and R.S. Gupta, Analytical Geometry of three Dimensions, Pothishala Pvt. Ltd. Allahabad.

नवीन संशोधित पाठ्यक्रम

दर्शन शास्त्र

बी.ए. भाग-एक, दर्शन शास्त्र में दो प्रश्न पत्र (75 अंक) के होंगे

1. भारतीय दर्शन की रूपरेखा
2. पाश्चात्य दर्शन का इतिहास

प्रत्येक प्रश्न पत्र पांच इकाईयों में विभाजित है । प्रत्येक इकाई में से एक प्रश्न हल करना अनिवार्य होगा ।

बी.ए. भाग – एक

दर्शन शास्त्र

प्रथम – प्रश्न पत्र

भारतीय दर्शन की रूपरेखा

- इकाई-1
1. भारतीय दर्शन – परिचय एवं मुख्य विशेषताएं
 2. वेद एवं उपनिषद- ब्रह्म , आत्मा
 3. चार्वाक दर्शन – तत्व मीमांसा
- इकाई-2
1. जैन दर्शन – स्याद्वाद, जीव, बंधन एवं मोक्ष
 2. बौद्ध दर्शन- चार आर्यसत्य, अनात्मवाद
- इकाई-3
1. न्याय दर्शन – प्रमाण (प्रत्यक्ष एवं अनुमान), ईश्वर
 2. वैशेषिक दर्शन- परमाणुवाद, सप्त पदार्थ
- इकाई-4
1. सांख्य दर्शन – प्रकृति , पुरुष, विकासवाद
 2. योग दर्शन – अष्टांग योग, ईश्वर
- इकाई-5
1. शंकराचार्य का अद्वैत दर्शन- ब्रह्म, आत्मा, माया
 2. रामानुज का विशिष्टाद्वैत – ब्रह्म, जीव, मोक्ष

उपरोक्त समस्त संशोधन विषय की स्पष्टता व ज्ञानवर्धन को ध्यान में रखकर समिति के सभी सदस्यों की सहमति से किया गया ।

नवीन संशोधित पाठ्यक्रम

बी.ए. भाग – एक

दर्शन शास्त्र

द्वितीय – प्रश्न पत्र

पाश्चात्य दर्शन का इतिहास

- इकाई—1
1. पाश्चात्य दर्शन – परिचय
 2. प्लेटो— प्रत्ययों का सिद्धांत
 3. अरस्तू— कारणता का सिद्धांत
- इकाई—2
1. थामस एक्वीनास— ईश्वर के अस्तित्व के प्रमाण
 2. डेकार्ट— संदेह पद्धति, आत्मा का अस्तित्व, ईश्वर का अस्तित्व
- इकाई 3.
1. स्पिनोजा – द्रव्य, गुण, पर्याय
 2. लाइबनिट्ज— चिद्बिन्दुवाद
- इकाई—4
1. जॉन लॉक— सहज प्रत्ययों का खंडन, मूलगुण एवं उपगुण
 2. जॉन बर्कले – मूलगुण एवं उपगुण का खंडन, विज्ञानवाद
- इकाई—5
1. ह्यूम— संस्कार और प्रत्यय, संदेहवाद, आत्मा का खंडन
 2. कांट – समीक्षावाद

उपरोक्त समस्त संशोधन विषय की स्पष्टता व ज्ञानवर्धन को ध्यान में रखकर समिति के सभी सदस्यों की सहमति से किया गया ।

प्रथम प्रश्न पत्र : राजनीतिक सिद्धान्त Paper I : Political Theory

- इकाई 1 : राजनीति विज्ञान का अर्थ, परिभाषा (आधुनिक अवधारणा सहित) । राजनीति एक विशिष्ट मानवीय व्यवहार के रूप में । शक्ति, सत्ता, प्रभाव : अर्थ, विशेषताएं, प्रकार । राजनीति विज्ञान की अध्ययन पद्धतियां : परम्परागत एवं व्यवहारवाद एवं उत्तर व्यवहारवाद ।
- Unit 1 : Meaning and Definition of Political Science (with modern concept). Politics as a specific human behaviour. Power, Authority and Influence : meaning, features and kinds. Method of Study to Political Science : Traditional , Behaviouralism and Post Behaviouralism.
- इकाई 2 : राज्य एवं उसके आवश्यक तत्व । राज्योत्पत्ति के विभिन्न सिद्धान्त, मार्क्सवादी सिद्धान्त । सावयविक सिद्धान्त ।
- Unit 2 : State and its essential elements. Various theories of the origin of the State, Marxist theory . Organismic Theory.
- इकाई 3 : सम्प्रभुता एवं उसकी बहुलवादी आलोचना । अधिकार: अर्थ, प्रकार , सिद्धान्त । कर्तव्य । स्वतन्त्रता : अर्थ , प्रकार, संरक्षण । समानता : अर्थ , प्रकार एवं स्वतन्त्रता से सम्बंध । प्रजातन्त्र : परिभाषा, व्यापक अर्थ, चुनौतियां, सफलता के लिए आवश्यक शर्तें , गुण-दोष । प्रत्यक्ष प्रजातन्त्र ।
- Unit 3: Sovereignty and its pluralistic criticism. Rights : meaning, kinds and theories. Duties. Liberty : meaning, kinds , safeguards. Equality : meaning, kinds and relations with Liberty. Democracy : meaning, comprehensive meaning, challenges, conditions for its success, merits and demerits. Direct Democracy.
- इकाई 4 : शासन के प्रकार : एकात्मक व संघात्मक , संसदीय व अध्यक्षीय, निरंकुशतन्त्र । शासन के अंग : कार्यपालिका, व्यवस्थापिका, न्यायपालिका । शक्ति पृथक्करण का सिद्धान्त व नियंत्रण –संतुलन का सिद्धान्त । संविधान : अर्थ , प्रकार । प्रतिनिधित्व के सिद्धान्त एवं निर्वाचन प्रणालियां ।
- Unit 4 : Kinds of Government : Unitary and Federal, Parliamentary and Presidential. Dictatorship. Organs of Government : Executive, Legislature and Judiciary. Theory of Separation of Powers and Checks and Balances. Constitution : meaning and kinds. Theories of representation and Electoral Process.
- इकाई 5 : लोककल्याणकारी राज्य । दल पद्धति : अर्थ , प्रकार, पद्धति । दबाव समूह : अर्थ, प्रकार, तकनीक । सामाजिक परिवर्तन : अर्थ, विशेषताएं , सिद्धान्त । नारीवाद, राष्ट्रवाद ।
- Unit 5 : Public Welfare State. Party System : meaning , kinds , process. Pressure Groups : meaning, kinds and technique. Social Change : meaning, characteristics, theories. Feminis. Nationalism.

राजनीतिक सिद्धांत

बी.ए. प्रथम
प्रथम प्रश्न पत्र

1. ओ.पी. गाबा, समकालीन राजनीतिक सिद्धांत, मयूर पेपर बैक्स नोएडा।
2. ओ.पी. गाबा, राजनीति सिद्धांत की रूपरेखा, मयूर पेपर बैक्स नोएडा।
3. जे.सी. जौहरी व सीमा जौहरी, आधुनिक राजनीति विज्ञान के सिद्धांत, स्टर्लिंग पब्लिकेशन।
4. पंत गुप्ता जैन, राजनीति शास्त्र के आधार, सेन्ट्रल पब्लिकेशिंग हाऊस इलाहाबाद।
5. प्रो. आनंद प्रकाश अवस्थी, भारतीय शासन एवं राजनीति, लक्ष्मीनारायण अग्रवाल, आगरा।
- 6 Andrew Haywood Political Theory , An Introduction.
- 7- O.P. Gaba An Introduction to Political Theory, Macmillan India Ltd.

द्वितीय प्रश्न पत्र : भारतीय शासन एवं राजनीति Paper II : Indian Government and Politics

- इकाई 1 : भारतीय राष्ट्रीय आन्दोलन : 1858 का प्रथम स्वतन्त्रता संग्राम, असहयोग आन्दोलन, सविनय अवज्ञा आन्दोलन, भारत छोड़ो आन्दोलन । भारत का संविधानिक विकास : 1858, 1909, 1919 और 1935 का भारत शासन अधिनियम ।
- Unit 1 : Indian National Movement : First Independence Movement 1858, Non cooperation Movement, Civil Disobedience Movement and Quit India Movement. Constitutional Development of India : Govt. of India Act of 1858, 1909, 1919 and 1935.
- इकाई 2 : भारतीय संविधान : विशेषताएं , प्रस्तावना, स्रोत, । संघीय व्यवस्था , मौलिक अधिकार, मूल कर्तव्य, नीति निर्देशक तत्व । संविधान संशोधन प्रक्रिया ।
- Unit 2 : Constitution of India : Characteristics, Preamble, Sources. Federal System. Fundamental Rights and Duties, Directive Principles of State Policy. Constitution Amendment Process.
- इकाई 3 : संघीय कार्यपालिका : राष्ट्रपति, उपराष्ट्रपति, मन्त्रिपरिषद् और प्रधानमंत्री । संघीय व्यवस्थापिका : संसद : लोकसभा और राज्यसभा । संसदीय प्रक्रिया ।
- Unit 3 : Union Executive : President , Vice President, Council of Ministers and Prime Minister. Union Legislature : Parliament: Lok Sabha and Rajya Sabha. Parliamentary Procedure.
- इकाई 4 : संघीय न्यायपालिका : सर्वोच्च न्यायालय : गठन, क्षेत्राधिकार, न्यायिक पुनरावलोकन, न्यायिक सक्रियतावाद । राज्य कार्यपालिका : राज्यपाल , मन्त्रिपरिषद् और मुख्यमंत्री ।
- Unit 4 : Union Judiciary : Supreme Court : Organisation, Jurisdiction, Judicial Review, Judicial Activism. State Executive : Governor, Council of Ministers and Chief Minister.
- इकाई 5 : राज्य व्यवस्थापिका : विधानसभा एवं विधानपरिषद् । निर्वाचन आयोग व चुनाव सुधार । राष्ट्रीय व क्षेत्रीय दल । भारतीय राजनीति के प्रमुख मुद्दे : जाति, धर्म, भाषा और क्षेत्र । पंचायती राज व्यवस्था ।
- Unit 5 : State Legislature : Legislative Assembly and Legislative Council. Election Commission and Election Reforms. National and Regional Parties. Major issues of Indian Politics : Caste, Religion, Language and Region. Panchayati Raj System.

संदर्भ पुस्तकें (Reference Books)

8. डॉ. सुभाष कश्यप, भारत का संवैधानिक विकास और संविधान, हिन्दी माध्यम कार्यान्वयन निदेशालय दिल्ली विश्वविद्यालय ।
9. डॉ. सुभाष कश्यप, हमारी संसद, भारत की संसद एक परिचय, राष्ट्रीय पुस्तक न्यास ।
10. डॉ. रूपा मंगलानी, भारतीय शासन एवं राजनीति, राजस्थान हिन्दी ग्रंथ अकादमी जयपुर ।
- 11- M.V. Pylee , Constitutional History of India , S.Chand.
- 12- D.D. Basu Indian Constitution

B. A. – I

PSYCHOLOGY

Paper	Name of the Paper	Max. Marks	Duration
I	Basic Psychological Processes	50	3 hrs.
II.	Psychopathology	50	3 hrs.
III.	Practicum	50	4 Hrs.

PAPER - I

BASIC PSYCHOLOGICAL PROCESSES (Paper Code-0119)

M.M.:50

Note: This paper consists of five units. From each unit a minimum of two questions would be set and the candidates would be required to attempt one from the each unit.

UNIT-1 Introduction: Definition and Goals of Psychology; Behaviouristic, Cognitive and Humanistic; Cross-cultural Perspectives. Methods: Experimental, Observational, Interview, Questionnaire, and Case study.

UNIT-2 Biological Basis of Behaviour: Genes and Behaviour, The Nervous System: The Central Nervous System (C.N.S.), The Autonomic Nervous System (A.N.S.) and The Peripheral Nervous System (P.N.S.); Glands and Hormones; Emotions- Types and Bodily changes (internal and external).

UNIT-3 Sensory and Perceptual Processes: Nature and Types of Sensation, Perception and Attention: Process, Definition, Types and Determinants; Principles of Perceptual Organization; Illusion: Nature and Types.

UNIT-4 Learning and Memory: Classical and Operant Conditioning- Basic Processes; Verbal and Observational Learning; Memory: Sensory (S.M.), Short-term (S.T.M.) and Long-term (L.T.M.); Forgetting: Process and Theories.

UNIT-5 Cognitive and Non-Cognitive Processes: Intelligence: Nature and Types; Motivation: Biogenic and Sociogenic Motives; Thinking Process: Nature and Types. Personality: Nature and Determinants; Approaches to study Personality: Trait and Type Approaches; Assessment of Personality.

References

1. सिंह, अरू । कुमार। सामान्य मनोविज्ञान। बनारसदास पकाषन।
2. वमा, पीति। आधुनिक सामान्य मनोविज्ञान।
3. Baron, R.A. & Byrne, D.A. Understanding Behavior. Tokyo: Halt Sounders.
4. Zimbardo, P.G. Psychology. New York: Haper Collings College publishers.
5. Lefton, L. A. (1985). Psychology. Bosten-Allyn Publishers.
6. Walser, A.L. (1997).



B. A. - I

PSYCHOLOGY

PAPER- II

PSYCHOPATHOLOGY (Paper Code-0120)

M.M.:50

Note: This paper consists of five units. From each unit a minimum of two questions would be set and the candidates would be required to attempt one from the each unit.

UNIT-1 Introduction: The concept of Normality and Abnormality; Models of Psychopathology: Psychodynamic, Behavioral and Cognitive.

UNIT-2 Assessment of Psychopathology: Diagnostic Tests, Rating Scales, Clinical Interview, and Projective Tests.

UNIT-3 Anxiety Disorders: Panic Disorder, Phobias, Obsessive Compulsive Disorder (OCD), and Generalized Anxiety Disorder (GAD).

UNIT-4 Mood Disorders: Manic-Depressive Episode and Dysthemia; Personality Disorders: Paranoid, Schizoid, and Dependent Personality Disorder, Dissociative disorder and Obesity.

UNIT-5 Management of Psychopathology: Stress Management; Medico and Psychosocial Therapy: Shock Therapy, Psychoanalysis, Group therapy and Behavior therapy.

References

1. Lamm, A. (1997). Introduction to Psychopathology. NY: Sage.
2. Buss, A. H. (1999). Psychopathology. NY: John Wiley.
3. सिंह तथा तिवारी। असामान्य मनाविज्ञान। आगरा। विनाद प्रस्तक १ डार।
4. कपिल, एच. क। असामान्य मनाविज्ञान। आगरा। हरपसाद शिव।



PSYCHOLOGY

PAPER- III

PRACTICUM

M.M.:50

Note: This paper consists of two parts:

Part-A

- (a) Comprises of Laboratory **Experiments**.
- (b) Comprises of Psychological **Testing** and understanding of self and others.

(a) **Experiments-** (Any five of the following) :-

- (i) Effect of Set on Perception
- (ii) Effect of Frustration on Performance.
- (iii) Division of Attention.
- (iv) Learning Curve/ Serial Position Curve.
- (v) Retroactive Inhibition (RI).
- (vi) S.T.M.
- (vii) Concept Formation.
- (viii) Judgment of Emotions through Facial Expressions.
- (ix) Personality Test

(b) **Psychological Tests** (Any four of the following)

- (i) Verbal/ Nonverbal Intelligence Test/ Performance Tests.
- (ii) E.P.I./ Personality
- (iii) Anxiety test.
- (iv) Depression Scale
- (v) Adjustment Inventory.
- (vi) Achievement motivation.
- (vii) Stress Tolerance Test.

Part-B

Anecdotal Record: Each student will be required to observe the behaviour of pupil in different setting and select an anecdote to understand, judge and narrate it as objectively as possible, so as to reveal his/her psychological insight existing in that anecdotal behavior. This record constitutes a part of psychological assessment of the students. Introduction to the measures of central tendency and graphical presentation of the ungrouped data.

Distribution of Marks

A. Conduction of Psychological Experiment and Reporting	-	15 Marks
B. Administration of one Psychological Test and Reporting	-	15 Marks
C. Evaluation of Practical notebook and Anecdotal record	-	10 Marks
D. Viva-voce	-	10 Marks

Note : No candidate will be allowed to appear in the practical examination unless his/her day-to-day practical work and the report are found satisfactory.

References Choubey, A. (2015). Psycho-lab- Experiment and Test. Raipur: Vaibhav Prakshan.



सत्र 2018–19 से प्रस्तावित (संशोधित दिनांक 20.08.2018)

बी.ए. प्रथम वर्ष

संस्कृत साहित्य

प्रथम प्रश्नपत्र

टीप – बी.ए. प्रथम वर्ष में संस्कृत साहित्य के दो प्रश्न-पत्र होंगे एवं दोनों प्रश्न –पत्र 75– 75 अंकों के होंगे ।

नाटक, व्याकरण और अनुवाद

पूर्णांक – 75

इकाई –1	स्वप्नवासवदत्तम् – व्याख्या	अंक – 15
इकाई –2	स्वप्नवासवदत्तम् – समीक्षात्मक प्रश्न	अंक – 15
इकाई –3	1. सुबन्त (शब्दरूप) – राम, मुनि, भानु, पितृ, करिन्, कर्तृ, आत्मन्, लता, मति, नदी, धेनु, मातृ, फल, वारि, सर्व, तद्, एतद्, यद्, इदम्, अस्मद्, युष्मद् । 2. तिङन्त (धातुरूप) – भ्वादि, दिवादि, तुदादि, चुरादि गण के अतिरिक्त अस् एवं कृ धातुओं के लट्, लृट्, लङ्, लोट् एवं विधिलिङ् लकारों के रूप 3. अपठित गद्यांश पर आधारित प्रश्न	अंक – 15
नोट– शब्द रूप एवं धातु रूप के विकल्प के रूप में अपठित गद्यांश पर आधारित प्रश्न भी पूछे जा सकते है ।		
इकाई –4	प्रत्याहार, संज्ञा, सन्धि और विभक्त्यर्थ	अंक – 15
इकाई –5	हिन्दी से संस्कृत में अनुवाद	अंक – 15

अनुशासित ग्रन्थ –

1. रचनानुवाद कौमुदी – डा. कपिलदेव द्विवेदी
2. संस्कृतस्य व्यावहारिकस्वरूपम् – डा. नरेन्द्र, श्री अरविन्द आश्रम
3. संस्कृतव्याकरण – श्रीधर वसिष्ठ
4. संस्कृत में अनुवाद कैसे करें – उमाकान्त मिश्र शास्त्री, प्रकाशक – भारती भवन
5. लघु सिद्धान्त कौमुदी – श्री महेश सिंह कुशवाहा, प्रकाशक – चौखम्बा विद्याभवन, वाराणसी

सत्र 2018–19 से प्रस्तावित

बी.ए. प्रथम वर्ष

संस्कृत साहित्य

द्वितीय प्रश्नपत्र

गद्य, कथा एवं साहित्येतिहास

पूर्णांक – 75

इकाई –1	शुकनासोपदेश: – व्याख्या	अंक – 15
इकाई –2	हितोपदेश: (मित्रलाभ:) – व्याख्या	अंक – 15
इकाई –3	शुकनासोपदेश एवं हितोपदेश के समीक्षात्मक प्रश्न	अंक – 15
इकाई –4	वैदिक एवं पौराणिक साहित्य का सामान्य परिचय (वेद, ब्राह्मण, आरण्यक, उपनिषद्, वेदांगों एवं पुराणों का संक्षिप्त परिचय)	अंक – 15
इकाई –5	निम्नलिखित कवियों का परिचय – महाकवि कालिदास, भारवि, माघ, श्रीहर्ष, विशाखदत्त, बाणभट्ट, शूद्रक, विशाखदत्त, भवभूति ।	अंक – 15

अनुशंसित ग्रन्थ –

1. शुकनासोपदेश – प्रकाशक – मोतीलाल बनारसीदास, वाराणसी
2. हितोपदेश (मित्रलाभ) – प्रकाशक – मोतीलाल बनारसीदास, वाराणसी
3. वैदिक साहित्य और संस्कृति – आचार्य बलदेव उपाध्याय
4. संस्कृत साहित्य का इतिहास – आचार्य बलदेव उपाध्याय
5. संस्कृत साहित्य का अभिनव इतिहास – डा. राधावल्लभ त्रिपाठी, वि.वि. प्रकाशन, सागर, म.प्र.

Revised syllabus
SOCIOLOGY 2018-2019

B.A. PART-I

Paper – I

INTRODUCTION TO SOCIOLOGY (Paper Code - 0115)

- UNIT-I **Sociology** : Meaning, Nature, scope, Subject matter and significance.
Basic concepts : Society, Community, institution, Association, group, Status and role.
- UNIT-II **Social Institutions**: Marriage, Family and kinship.
Culture and society: Culture, socialization, The individual and society, social control, norms and values.
- UNIT-III **Social Stratification**: Meaning, forms and theories.
Social Mobility: Meaning, forms and theories.
- UNIT-IV **Social change**: Meaning and patterns, types, factors, evolution and progress.
- UNIT-V **Social System and process**: Social System- meaning, characteristics and elements.
Social process- Meaning, elements, characteristics and types.

ESSENTIAL READINGS :-

- 1 Bottomore T.B., Sociology- A guide to Problems and Literature, Bombay. George Allen and unwin(India) 1972.
- 2 Inkeles, Alex, What is Sociology ? New Delhi, Prentice Hall of India 1987.
- 3 Jayram, N., Introductory Sociology, Madras Maomillan India 1988.
- 4 Johnson Harry, M., Sociology of systematic Introduction New Delhi Allied Publishers 1995.

Ching
11-6-18

Boyd

सपना
11.06.18

Shubhash
11/06/2018

[Signature]
11.06.2018

[Signature]

Am
11/6/18

[Signature]
11/6/18

[Signature]

11/6/2018
Head,

S.O.S. in Sociology & Social Work,
Pt. Ravishankar Shukla University,
Raipur. (C.G.)

Revised syllabus
SOCIOLOGY 2018-2019

B.A. PART-I

Paper –II

CONTEMPORARY INDIAN SOCIETY (Paper Code-0116)

- UNIT-I **Classical View about Indian Society:** Verna, Asharam, Karma, Dharma and Purusharth.
- UNIT-II **The Structure and composition of Indian society.**
Structure ; Village ,Towns, Cities and Rural – Urban Linkage,
Compositions: Tribes, Dalits, Women and Minorities.
- UNIT-III **Basic Institutions of Indian Society:**
Caste system, Joint Family, Marriage and Changing dimensions.
- UNIT-IV **Familial Problems:**
Dowry, Domestic violence, Divorce, Intra-intergenerational conflict, problem of elderly.
- UNIT-V **Social Problems:**
Surrogate Motherhood, Live in Relationship, Regionalism, Communalism, Corruption, Youth unrest.

ESSENTIAL READINGS :-

- 1 Dube, S. C. 1995. Society in India, New Delhi: National Book Trust.
- 2 Mandelbaum, D.G. 1970. Society in India, Bombay: Poular Prakashan.
- 3 Shrinivas, M.N. 1973. Social Change in Modern India, California: University of California Press.
- 4 Shrinivas, M.N. 1990. Social Change Structure, New Delhi: Hindustan Publishing Corporation.
- 5 Uberoi Patricia, 1993. Family and Marriage In India, New Delhi: Oxford University Press.

Shree
Shree

11/06/18

Shree
11/06/2018

[Signature]

11-6-18

[Signature]
11-06-2018

[Signature]
11/6/2018
Head,

S.O.S. in Sociology & Social Work
Pt. Ravishankar Shukla University
Raipur. (C.G.)

[Signature]
11/6/18

B.A./B.Sc. –I
Subject-Statistics
Paper – I (Paper Code-0803)
PROBABILITY THEORY

Unit-I

Important concepts in probability: Random experiment: trial, sample point and sample space, event, Operations of events, concepts of mutually exclusive and exhaustive events. Definition of probability: classical and relative frequency approach. Richard Von Misses, Cramer and Kolmogrove approaches to probability, merits and demerits to these approaches, any general idea to be given. Discrete probability space, Properties of probability based on axiomatic approaches, Independence of events, Conditional probability, total and compound probability rules, Baye's theorem and its applications.

Unit-II

Random variables: Definition of discrete random variable (rv); probability mass function (pmf) and cumulative distribution function (cdf). Joint pmf of several discrete rvs. Marginal and conditional pmfs. Independence of rvs. Idea of continuous random variables, probability density function, illustration of random variables and its properties. Expectation of a random variable and its properties -moments, measures of location and dispersion, skewness and kurtosis, Moment generating function, raw and central moments, Probability generating function (pgf) and, their properties and uses.

Unit-III

Standard univariate discrete distributions: degenerate, discrete uniform, hypergeometric, Poisson, geometric and negative binomial distributions. Marginal and conditional distributions, Distributions of functions of discrete rvs, reproductive property of standard distributions.

Unit-IV

Univariate continuous distributions and their properties: Uniform, Beta, Gamma, Exponential, Normal, Cauchy, Lognormal. Moment generating function (mgf) : its properties and applications. Tchebycheff's inequality and applications, statements and applications of weak law of large numbers and central limit theorems.

Unit-V

Four short notes, one from each unit will be asked. Students have to answer any two.

REFERENCES

1. Bhat B.R.,Srivankataramana T. and Rao Madhav K.S. (1997): Statistics; A Beachners Vol. II, New Age International (P) Ltd.
2. Chung, K.L. (1979). Elementary Probability Theory with Stochastic Processes, Springer International Student Edition.
3. Edward P.J., Ford J.S. and Lin (1974): Probability for Statistical Decision-Marketing. Prentice Hall
4. Goon A.M., Gupta M.K. and Dasgupta B.(1999): Fundamentals of Statistics, Vol. I , World Press, Calcutta
5. Mood A.M., Grabill F.A. and Bose D.C.(1974): Introduction to the theory of Statistics, Mc. Graw Hall.

ADDITIONAL REFERENCES:

6. Cook, Cramer and Clark (): Basic Statistical Computing, Chapman and Hall.
7. David Stirzaker (1994). Elementary Probability, Cambridge University Press.
8. Feller, W. (1968). An Introduction to Probability Theory and its Applications, Wiley.
9. Hoel P.G. (1971): Introduction to Mathematical Statistics
10. Mayer P.L. (1970): Introductory Probability and Statistical Applications, Addition Wesley
11. Mukhopadhyay, P. (1996). Mathematical Statistics, New Central Book Agency, Calcutta.
12. Parzen, E. (1960). Modern Probability Theory and its Applications, Wiley Eastern.
13. Pitman, Jim (1993). Probability, Narosa Publishing House.

Paper – II(Paper Code-0804) **DESCRIPTIVE STATISTICS**

Unit - I

Origin and Development of statistical importance, uses and limitations of Statistics. Types of Data: Concepts of a statistics population and sample from a population; qualitative and quantitative data; nominal and ordinal data; cross sectional and time series data; discrete and continuous data; frequency and non-frequency data.

Collection and Scrutiny of Data; Primary data – designing a questionnaire and a schedule; checking their consistency. Secondary data – their major sources including some government publications. Complete enumeration, controlled experiments, observational studies and sample surveys. Scrutiny of data for internal consistency and detection of errors of recording. Ideas of cross-validation.

Presentation of Data: Construction of tables with one or more factors of classification. Diagrammatic and graphical representation of non-frequency data. Frequency distributions, cumulative frequency distributions and their graphical and diagrammatic representation – column diagram, histogram, frequency polygon and ogives. Stem and leaf chart. Box plot.

Unit -II

Analysis of Quantitative Data: Univariate data: Concepts of central tendency or location, and their measures; arithmetic, geometric and harmonic mean, median and mode.

Unit -III

Dispersion and relative measures of dispersion, skewness and kurtosis, and their measures including those based on quartiles and moments. Sheppard's corrections for moments for grouped data (without deviation).

Unit -IV

Bivariate data: Scatter diagram. Product moment correlation coefficient and its properties. Coefficient of determination. Correlation ratio. Concepts of regression. Intra-class correlation coefficient with equal and unequal group sizes. Rank correlation – Spearman's and Kendall's measures. Correlation index. Principle of least squares. Fitting of linear and quadratic regression and related results. Fitting

of curves reducible to polynomials by log and inverse transformation. Multivariate data: Multiple regression, multiple correlation and partial correlation in 3 variables. Their measures and related results.

Unit V

Four short notes, one from each unit will be asked. Students have to answer any two.

REFERENCES

1. Bhat B.R., Srivankataramana T. and Rao Madhav K.S. (1997): Statistics; A Beachners Vol. II, New Age International (P) Ltd.
2. Croxton FE, Cowden DJ and Klein S: Applied General Statistics (1973): Prentice Hall of India.
3. Goon A.M., Gupta M.K., Dasgupta B. Fundamentals of Statistics, Vol. 1(1991) & Vol. 2(2001). World Press, Calcutta.
5. Gupta V.K. and Kapor S.C. : Fundamentals of Mathematical Statistics S. Chand and Sons.

ADDITIONAL REFERENCES:

6. Cook, Cramer and Clark (): Basic Statistical Computing, Chapman and Hall.
7. Mood A.M., Grabill F.A. and Bose D.C.(1974): Introduction to the theory of Statistics, McGraw Hill.
8. Snedecor GW and Cochran WG: Statistical Methods (1967) : Iowa State University Press.
9. Spiegel, MR (1967): Theory & Problems of Statistics (1967): Schaum's Publishing Series.

Paper III:

Practical : Practicals Based on Paper I & II

1. Presentation of data by Frequency tables, diagrams and graphs.
2. Calculation of Measures of Central Tendency, dispersion , skewness and kurtosis
3. Product Moment Correlation and Correlation Ratio
4. Fitting of Curves by the least square method
5. Regression of two variables
6. Spearman's Rank correlation Coefficient
7. Multiple regression of three variables
8. Multiple correlation and partial correlation
9. Evaluation of probabilities using addition and multiplication theorems, conditional probabilities and Bayes theorems
10. Exercises on mathematical expectations and finding measures of central tendency, dispersion, skewness and kurtosis of univariate probability distributions
11. Fitting of univariate and conditional distributions

हिन्दी साहित्य
प्रथम - प्रश्न पत्र
(प्राचीन हिन्दी काव्य)
(पेपर कोड-0103)

अंक 75

उद्देश्य एवं प्रस्तावना-

प्राचीन से तात्पर्य है - आधुनिक काल से पूर्व का काल । सही अर्थ में हिन्दी भाषा और साहित्य का विकास आदिकाल से शुरू होता है । इसमें धार्मिक तथा ऐतिहासिक दो प्रकार का साहित्य मिलता है, जो प्रबंध, मुक्तक, रासो, फागु, चरित, सुभाषित आदि विविध । काव्यरूपों में अभिव्यंजित है । मध्यकालीन साहित्य की पृष्ठभूमि के रूप में इसे प्रतिष्ठापित किया जाता है ।

मध्यकालीन काव्य में भक्तिकाव्य, जहां लोक जागरण को स्वर देने वाला है, वहीं रीतिकाल अपने लौकिक-श्रृंगारिका, परिदृश्य में तत्कालीन सामाजिक, सांस्कृतिक, राजनीतिक स्थितियों को बेलौस अभिव्यंजित करता है । अतः भाषा, संस्कृति, विचार, मानवता, काव्यत्व, काव्यरूपता, लौकिकता-पारलौकिकता, आदि दृष्टियों से इसका अध्ययन अत्यावश्यक है ।

पाठ्य विषय -

1. कबीर (कबीर - कांतिकुमार जैन) प्रारंभिक 50 साखियाँ)
2. जायसी-संक्षिप्त पद्मावत-श्यामसुंदर दास) नागमती वियोग वर्णन
3. सूर (भ्रमर गीत सार - सं. आचार्य रामचन्द्र शुक्ल) प्रारंभिक 25 पद
4. तुलसी - " रामचरित मानस" के अयोध्याकाण्ड से प्रारंभिक 25 दोहे चौपाई, छंद सहित ।
5. घनानन्द (घनानन्द - सं. विश्वनाथ प्रसाद मिश्र) प्रारंभिक 25 छन्द द्रुत पाठ हेतु निम्नांकित तीन कवियों का अध्ययन किया जावेगा - जिसमें से किन्हीं दो पर लघूत्तरीय प्रश्न पूछे जायेंगे -
 1. विद्यापति
 2. रहीम
 3. रसखान

अंक विभाजन-

- | | |
|----------------------|------------|
| 1. 3 व्याख्याएँ | 30 प्रतिशत |
| 2. आलोचनात्मक प्रश्न | 30 प्रतिशत |
| 3. लघूत्तरीय प्रश्न | 20 प्रतिशत |
| 4. वस्तुनिष्ठ प्रश्न | 20 प्रतिशत |

हिन्दी साहित्य
द्वितीय - प्रश्न पत्र
हिन्दी कथा साहित्य
(पेपर कोड-0104)

पूर्णांक 75

उद्देश्य एवं प्रस्तावना-

गद्य की प्रमुख विधाओं का इतना द्रुत विकास इनकी लोकप्रियता का प्रमाण प्रस्तुत करता है । इसमें आधुनिक जीवन, अपनी विविध कवियों के साथ यथार्थ रूप में अभिव्यंजित हुआ है । जीवन की अनुभूतियाँ, संवेदनाओं तथा विविध परिस्थितियों के साक्षात्कार के लिए इनका अध्ययन सर्वथा अपेक्षित है ।

पाठ्य विषय -

व्याख्या एवं आलोचनात्मक प्रश्नों के लिए एक उपन्यास एवं आठ कहानीकारों की एक-एक प्रतिनिधि कहानी का अध्ययन आवश्यक है ।

उपन्यास	1. गबन	-	प्रेमचंद
कहानी	1. प्रेमचंद	-	कफन
	2. जयशंकर प्रसाद	-	आकाश दीप
	3. यशपाल	-	परदा
	4. फणीश्वरनाथ रेणु	-	ठेस
	5. मोहन राकेश	-	मलवे का मालिक
	6. भीष्म साहनी	-	चीफ की दावत
	7. राजेन्द्र यादव	-	बिरादरी बाहर
	8. रागेय राघव	-	गदल

द्रुत पाठ के लिए निम्नांकित तीन कथाकारों का अध्ययन अपेक्षित है, जिनमें से किन्हीं दो पर लघुत्तरीय प्रश्न पूछे जावेंगे -

1. उपेन्द्रनाथ अशक, 2. बाल शौरि रेड्डी 3. शिवानी

अंक विभाजन -3/ व्याख्याएँ 30 प्रतिशत

2/ आलोचनात्मक प्रश्न	30 प्रतिशत
5/ लघुत्तरीय प्रश्न	20 प्रतिशत
20/ वस्तुनिष्ठ प्रश्न	20 प्रतिशत

B. A. Part-I
ENGLISH LITERATURE

There will be two literatures in English - 1550-1750 Papers, each carrying maximum marks - 75. Nine questions are to be attempted in each paper. Each question carries the marks according to the scheme mentioned in each paper.

ENGLISH LITERATURE
PAPER - I

LITERATURE IN ENGLISH - 1550-1750 (Paper Code-0105) M.M. 75

- Ⓐ Unit-1 of annotation is compulsory, and passages to be set from Units (II to V), atleast one from each unit, 3 to be attempted. 3x5 = 15
 - Ⓑ Multiple choice/objective type questions to be set unit vii, 15 to be set 10 be attempted. 1x1 = 10
 - Ⓒ From Unit-II to VI-8 questions to be set atleast one from each unit-5 to be attempted. 10x5 = 50
- Word Limit for each answer 300 to 400 words.

UNIT-1 ANNOTATIONS .

UNIT-2 POETRY

- (a) Shakespeare - Sonnet No. 1 From Fairest Creatures, Sonnet No. 154., The little Love God.
- (b) Milton - How Soon Hath Time the Subtle Theif of Youth ...
- (c) John Donne - Sweetest Love I Don't go, This is my play's Last Scene.

UNIT-3 POETRY

- (a) John Dryden - Portrait of Shadwell.
- (b) Alexander - Pope- From An Essay on Criticism (True case in writing) and the world's Victor Stood subdned by sound.

UNIT-4 PROSE

- (a) Bacon Of Studies, Of Health, Of Friendship
- (b) Addison-Sir Roger at Home
- (c) Steele Of the Club.

UNIT-5 DRAMA

Shake spear - The Merchant of Venice

UNIT-6 Fiction - Swift - The Battle of the Books.

UNIT-7 Historical and Literary Topics

- Ⓐ The Renaissance.
- Ⓑ Humanism.
- Ⓒ Reformation.
- Ⓓ The Restoration.
- Ⓔ The Earlier Drama
- Ⓕ Petrarchism and the Sonnet Cycle.
- Ⓖ The Influence of Seneca and Classical Dramatic Theory
- Ⓗ The Elizabethan and Jacobean stage.
- Ⓘ Restoration Drama
- Ⓚ The Rise of Periodcal Essay

BOOKS RECOMMENDED for Unit VII in Papers I and II

- 1 Edward Albert - A History of English Literature.
- 2 Ifor Evans - A short History of English Literature.
- 3 Hudson - An Outline History of English Literature.

Both the papers of B. A. Part-I are included in the anthologies prescribed in the previous syllabus for B. A. Part-I and B. A. Part - II

ENGLISH LITERATURE

PAPER - II

LITERATURE IN ENGLISH FROM 1750-1900 (Paper Code-0106)

- Note-**
- (i) Unit-1. of annotation is compulsory, 6 passages be set from Units (II to IV) atleast one from each unit, 3 to be attempted. 3x5 = 15
 - (ii) Multiple Choice/objective type questions to be set from unit-VII, 25 to be set 10 to be attempted. 1x10 = 10
 - (iii) From Units 11 to VI-8 questions to be set atleast one from each Unit - 5 to be attempted. 10x5 = 50
- Word Limit for each answer 300 to 400 words.

UNIT-1 ANNOTATIONS

UNIT-2 POETRY -

- (a) Blake - Tiger, Tiger Burning Bright.
- (b) Wordsworth - Daffodils and Solitary Reaper.
- (c) Coleridge - Frost at Midnight.

UNIT-3 POETRY-

- (a) Shelley - Ode to a skylark.
- (b) Keats - Ode to Autumn.
- (c) Tennyson - Crossing the Bar.
- (d) Browning - Prospice.

UNIT-4 PROSE

- (a) Lamb - Dream Children : A Reverie
- (b) Hazlit - On Actors and Acting

UNIT-5 Fiction Jane Austen - Pride and prejudice.

UNIT-6 Fiction Charles Dickens - David Copperfield

UNIT-7 Historical and Literary Topics.

- (1) The Reform Acts.
- (2) The Impact of Industrial ization.
- (3) Colonialism And Imperialism.
- (4) Scientific the ughts and discoveries.
- (5) Faith and Doubt.
- (6) Classical and Romantic Concepts of Imagination.
- (7) Varieties of Romantic and Victorian Poetry.
- (8) The Victorian Novel.
- (9) Realism and the Novel.
- (10) Aestlheticism.

MUSIC

- Note :** 1. B. A. (General) three year degree course with the relative weight of practical and theory being in the proportion 50 and 50 respectively (Model curriculum, page No.21A) courses. Hence the Central Board of Studies divide the ratio as :-
- Ist paper 40 marks (written or Theory) Revised as 50
2ad paper 40 mars (written or Theory) Revised as 50
practical of 10 marks from which 10 marks are for the intcrnal sossional work.
B.A. General (as one of the optional objccts).
Hindustain Music (Vocal +Instrumental..)

THEORY

PAPER - I

M.M. : 50

(Paper Code-0131)

1. Definition and Illustrations :- Naad, Shruti, Swara, Saptak, Purvang, Uttarang, Vadi, Samvadi, Vivadi, Anuvadi, Alankar, That, Mind, Soota, Bol, Alap, Tan, Tihai, pakad.
2. General knowledge of the Musical Styles:-
Dhrupad, Dhamar, khyal, Thumari, Tarana, Tappa, Hori, Chaturang, Geet, bhaion, Ghazal,
3. General Knowldege of the biographies and the contributions of the following Musicians:-
Ameer khusroi, Swami Haridas, Tansen, Nayak Baiju, Nayak Gopal, Tyagraja.
4. Merits and Demerits of Musicians according to the Shastras.
5. Study of the Theoretical details of prescribed Ragas for Practical Course as follows :- Yaman, Bhupali, Allhaiya Bilawal, Bhairav, Kafi, Khamaj, Brindavani - sarang, Durga (Bilawal That).

THEORY

PAPER - II

M.M. : 50

(Paper Code-0132)

1. Hindustani Music and Kamataka Music, short history, similarities and Differences.
2. Study of Natation Systems - Pt. Bhatkhande and Pt. Paluskar.
3. Time Theory of the Ragas, Purva Raga, Utlar Raga, Sandhi Prakash Raga,
4. Fomation of Ragas, Sampurna, Shadav, Audawa, Jati, That or Mel Theory.
5. Definition of Tala, Matra, Avartan, Bol, Vibhag, Khali, Bhari, Vilambit, Madhya and Drutlaya Writing of the Talas in Notation with Dugan

PRACTICAL

M.M. : 50

- 1 Alankar (Palta)
- 2 Study of the following Ragas :- Yaman, Bhupali, Alahaiya Bilawal, Bhairav, Kafi, Khamaj, Brindavani Sarang, Durga (Bilawal That)
- 3 Two Vilambit Khyalas or Masitkhani Gat in any two of the above mentioned Ragas.
- 4 Madhya Laya Khyalas or Razakhani Gat with Alap, Tan, Tora Jhala, in any five of the above Ragas.
- 5 Lakshan Geet, Saragam Geet in all the above Ragas.
- 6 Ability to demonstrate (orally by giving Tali and Khali of on hand) Talas Prescribed in course as follows :- Dadra, Kaharva, Teen Tal, Ektal, Chautal, Jhaptal.
- 7 One Dhrupad or Dhamar / one Gat other than teen Tal (Composition only)
- 8 One Bhajan, Ghazal, Geet, Patrioteec song and prayer.

INTERNAL SCSSIONAL WORK -

- 1 Ten Descriptions of Music Programmes (Radio and T. V. personally atloned)

RECOMMENDED BOOK -

- 1 Kramik Pustak Malika (Part I to Part IV) By pt. V.N. Bhatkhande.
- 2 Sangitanjali Part I to VI By Pt. Onkar Nath Thakur.
- 3 Sangeet Visharad (Hathras) By Vasant
- 4 Sangeet Bodh, By Dr. Sarad Cahndra Paranjape
- 5 Dhawani aur Sangeet, by Prof. L. K. Sing
- 6 Tan Malika, by Raja Bhaiya Pooovale
- 7 Hamare Sangeet Ratna, by Lakshmi Narayan Garg.
- 8 Rag Parichaya Part I to IV By Harish Chandra Shrivastava
- 9 All Journals and Magazenes of Music
10. Sitar Malika, (Hathra)
11. Tabla Vigyan, by Dr. Lalmani Misra
12. Swar aur Ragon ke Vikas me Vadyon ka Yogdan, By Prof. Indrani Chakrawarty.
13. Sangeet Manjusha By Prof. Indrani Chakrawarty.
14. Music - its methods and technique and teaching in Higher Education.
By Prof. Indrani Chakrawarty.
15. Sangeetanjali Part I to V By Pt. Ramashraya Jha.

- - - - -

पाठ्यक्रम उर्दू निसाब

नोट : इस इम्तेहान में दो पर्चे होंगे । हर पर्चे में 75 नम्बर पर मुशतमिल होगा ।

- (1) नस्र (2) नज्म ।

पहला पर्चा

नस्र (पेपर कोड-0129)

(सवानेह, खाके, इन्शाईये)

निसाब

(1) सवानेह :

1. गालिब के सवानेही हालात : “यादगारे गालिब” के मुसन्नफ अल्लाफ हुसैन हाली
2. शिब्ली की बेनियाजी और खुद्दारी : “हयाते शिब्ली” से सैयद सुलेमान नदवी
3. नजीर अहमद की कहानी : “कुछ मेरी, कुछ उनकी जबानी” मुसन्नफ फरहत उल्ला बेग

(2) खाके :

1. नामदेव माली : चन्द हम अम्र से मुसन्नफ मौलवा अब्दुल हक
2. हकीम अजमल खाँ : “खिमालिस्तान” सज्जाद हदर यलद्रम
3. अकबर इलाहाबादी : इन्शाएँ माजिद हिस्सा-2, मुसन्नफ अब्दुल माजिद दरयावादी
4. जिगर साहब : “साहब” से मुसन्नफ मोहम्मद तुफैल
5. मौलाना अब्दुल कलाम आजाद : “अब्दुल कलाम आजाद” से मुसन्नफ मुलामुस्सयदेन

(3) इन्शाईये :

1. तास्सुब : “मजामीने सर सैयद” सर सैयद
2. मुझे मेरे दोस्तों से बचाओ : “खिमालिस्तान” सज्जाद हदर यलद्रम
3. शहजादे का बाजार में घिसटना : गदरे देहली के अफसाने सुसन्नफ ख्वाजा सहन निजामी
4. सबेरे जो कल आँख मेरी खुली : “मजामीने पितरस” अज पितरस बुखारी
5. बरसात : निगारिस्तान अज नियाज फतहपुरी
6. शायर होना क्या माने रखता है : अज रशीद अहमद सिद्दीकी

पर्चा प्रथम

नोट : मुन्दरजा बाला पर्चा पाँच इकाईयों में तफसीम होगा ।

इकाई-1	1. सवाने, निगारी, खाका निगारी और इन्शाईया निगारी पर सवालात ।	15 नम्बर
	2. शामिले निसाब हसबाफ पर सवालात	15 नम्बर
	3. शामिले निसाब खाकों पर सवालात	15 नम्बर
	4. शामिले निसाब इन्शाईयों पर सवालात	15 नम्बर
	5. शामिले निसाब असबाफ सवानेही और इन्शाईयों में इत्केबासात की तशरीह	15 नम्बर

पर्चा द्वितीय (शायरी)

गजलियात (पेपर कोड-0130)

निसाब :

- (1) बली : 1. याद करना हर घड़ी उस यार का
2. शराबे शौक से सरशार हैं हम

- (2) मीर तक़ी मीर : 1. उल्टी हो गई सब तदवीरे
2. मुँह तक़ाही करें है जिस तिस का
- (3) ग़ालिब : 1. दिल ही तो है न संगो ख़िश्त दर्द से भर न आए क्यो
2. यह न थी हमारी किस्मत के विसाले यार होता
- (4) मौमिन : 1. अगर उसकी जरा नहीं होता
2. ग़ैरो पे खुल न जाएँ कही राज देखना
- (5) आतिश : 1. मगर उशको फरेबे नर्गिसे मस्ताना आता है
2. हवाएँ दौरे गए खुशगवार राह में है
- (6) दाग़ देहलवी : 1. खातिर से या खअयाल से मैं मान तो गया
2. गाब किया तेरे बादे पे एतेवार किया
- (7) सिरज मीर ख़ाँ सैहर : 1. सोने में दिल है दिल में दाग़
2. वक्ते जिबाह मुँह फिर फिर गया शमशीरे कातिल का
- (8) डॉ. इकबाल : 1. कभी ऐ हकीकते मुसुन्तजिर नजर आ लिबासे गजाज में
2. फिर चरागे लाबा से रोशन हुए कोहो दमन
- (9) हसरत मौहानी : 1. रस्मे जफा कामयाब देखिये कब तक रहे
2. हुस्ने बे परवा को कुद बीन खुद आरा कर दिया
- (10) फानी बदायूरी : 1. खल्क कहती है जिसे दिल तेरे दीवाने का
2. दुनियाँ मैरा बला जाने मेंहगी है के सस्ती है
- (11) जिगर मुरादाबादी : 1. दिल गया रोनेके हयात गई
2. सेहले खिरद ने दिन यह दिखाएँ
- (12) फराक़ गौरखपुरी : 1. निगारे नाज ने पर्दे उठाए है क्या-क्या
2. बहुत पहले से उन कदमों की आहट जान लेते है
- (13) मजरूह सुल्तान पुरी : 1. जला के मशअले जाँ हम जुन सिफात चले
2. मुझे सहल हो गई मंजिले
- (14) ताज भोपाली : 1. मै हूँ गदाए हुस्न न यूँ हँस के टाल दे
2. है अजब भीड़ भाड़ सड़कों पर
- (15) जाँ निसार अख़्तर : 1. हम से भागा न करो दूर गजालो की तरह
2. न ख़्वाब, ख़लिश न खुमार यह आदमी तो कोई सानेहा लगे है मुझे
- (16) खलील उर्रेहमान आज़मी : 1. हम जिन्दगी के साज पे गाते रहे नगमा तेरा
2. मै सूने मकान का दिया हूँ
- (17) फजला ताबिशं : 1. एक दो धोखे हो तो यारो दिल रखने को खा भी लो
2. न कर शुमार के हर शै गिनी नहीं आती

इकाईयाँ : इकाई नं.	1. गजल से मुताल्लिक सवालात	15 नम्बर
	2. कदीम शुअरा पर तन्कीदी सवालात	15 नम्बर
	3. जदीद गजल गो शुअरा पर सावालात	15 नम्बर
	4. कदीम गजल गो शुअरा के अशआर की तशरीह	15 नम्बर
	5. जदीद गजल गो शुअरा के अशआरकी तशरीह	15 नम्बर

HOME SCIENCE

PAPER - I

ANATOMY PHYSIOLOGY & HYGIENE

M.M. : 50

(Paper Code-0121)

- UNIT-1** Structure & functions of cell general introduction of Tissue and their functions skeletal system - Types of bones, classification general structure & functions of bones. Muscular system - General structure, types and function.
- UNIT-2** Circulatory system - General structure of organs and functions. composition of blood & function. Respiratory system - General structure of organs and functions.
- UNIT-3** Digestive system - General introduction of Nutrients, Liver and spleen organs of digestion their general structure and function. Excretory system- organs of excretion.
Kidney & skin - structure & function.
- UNIT-4** Nervous system - Central nervous system structure and function.
Senses and Sensory organs - ear and eye structure & function.
- UNIT-5** Hygiene - Personal Hygiene
social Hygiene
Environmental and Industrial Hygiene
Water - its importance and purification.
Air - its importance and purification.
First aid home nursing - Principles, qualities of nurse, Responsibilities, selection of sick room. care of the patient. Some common accidents and their aid, poision, bleeding, Burns and scalds, fracture sprain, dislocation.

प्रायोगिक

कुल समय 3 घंटे

कुल अंक- 50

अंको का विभाजन

1. सेशनल	10
2. प्राथमिक उपचार	10
3. गृह परिचर्या	15
4. शरीर रचना एवं स्वास्थ्य विज्ञान	15

सेशनल : (परीक्षा के समय छात्राएँ प्रायोगिक नेट बुक एवं प्राथमिक उपचार पेटी जमा करें) ।

प्रयोग क्रमांक-1 रिपोर्ट : कालेज की कक्षाओं का प्रतिदिन की सफाई एवं वायुविजन संबंधित निरीक्षण ।

प्रयोग क्रमांक-2 स्वयं के परिवार में पीने के पानी के प्रसि के साधन, संग्रह के प्रकार एवं साधन पानी की शुद्ध एवं स्वच्छता के लिये प्रयुक्त विधि ।

प्रयोग क्रमांक-3 रिपोर्ट : स्वयं के परिवार एवं अन्य दो पड़ोसी परिवार के घर में अगस्त से दिसम्बर (अनुमानतः पांच महीने) के दौरान हुई बीमारियों के संबंध में जानकारी ।

1. रोग का नाम ।
2. प्राथमिक उपचार - जो दिया गया ।
3. आहार (जो उपयोग में लाया गया) ।

- प्रयोग क्रमांक-4** प्राथमिक उपचार पेटी (आवश्यक सामान)
1. घाव धोने एवं बांधने का सामान ।
 2. दर्द कम करने की दवाईयाँ ।
 3. अपाचन - में प्रयुक्त दवाईयाँ ।
- प्राथमिक उपचार पेटी छात्राएँ परीक्षा के समय अपना नाम एवं परिवार के सदस्यों की संख्या लिखकर प्रस्तुत करें ।
- प्रयोग क्रमांक-5** रोगी के लिये उपचारात्मक व्यंजनों का अध्यापक द्वारा करके बताना ।
1. सब्जियों का सूप ।
 2. दाल का सूप ।
 3. उबला अंडा ।
 4. फटे दूध का पानी (व्हे वाटर) ।
 5. सब्जी एवं फलों का स्टू (फ्लूश्रल्लीड्यलीछश्च श्रुडुट्टरू क्ल्च).
- इन व्यंजनों की विधि एवं उपयोगिता नोट बुक में अंकित की जावेगी ।
- प्रयोग क्रमांक-6** प्राथमिक उपचार
1. विभिन्न प्रकार की पट्टियाँ (तिकोनी, गोल) ।
 2. घाव की देखभाल ।
 3. कृत्रिम श्वसन ।
- प्रयोग क्रमांक-7** गृह परिचर्चा
1. शरीर के तापमान का चार्ट
 2. गरम एवं ठंडे पानी की थैली तैयार करना ।
 3. बिस्तर लगाना / चद्दर बदलना ।
- प्रयोग क्रमांक-8** दृष्य श्रव्य यंत्र का बनाना ।
- महत्वपूर्ण निर्देश-** प्रयोग क्रमांक 1, 2, 3, तथा 5 की रिपोर्ट छात्राओं द्वारा प्रायोगिक नोट बुक में लिखकर एवं अध्यापक द्वारा प्रति हस्ताक्षरित / प्रमाणित करवाकर परीक्षा के समय प्रस्तुत की जावेगी ।

HOME SCIENCE

Paper - II

HOME SCIENCE - EXTENSION EDUCATION

(Paper Code-0122)

UNIT-1 Introduction of Home Science Extension Education :

- (A) Home Science - Concepts, goals and Areas of Home Science & their inter relationship with extension.
- (b) Principles and methods of home science extension education general concepts of extension work.
- (c) Objectives of extension education qualities of extension workers, extension education process.

UNIT-2 Community Development problems and Role of Home Scientists :

- (A) Principles of community development organization and function of community development.
- (B) Role of home scientists in community development, programmes of extension education for community. programmes of community development at central, state, district, block and village level.
Family planning programme.
Community problems, child marriage, Dowery system, parda pratha, rural indibtendness unemployment.

UNIT-3 Teaching methods & aids :

Methods of learning - Discussion, demonstration, observation and their applection to home science teaching.

Extension Methods - their scope advantages and application.scope and use in Home Science teaching

Extension Methods - their scope advantages and application.

UNIT-4 Attitude towards Home Science :

Attitudes towards Home Science, Motivation towards Home Science. Applection of Home Science towards improvement in family living. Job oppportunities in Home Science National and International agencies and their collaboration with Home Science, Official organization Home Science Association of India, W.H.O. FAG, CARE, ICAR, ICDS, ICSSR, ICMR, IRDP, Adult education.

UNIT-5 Curriculum Planning in Home Science :

Basic concept of curriculum planning components of curriculum planning imple mentation evolution and improvement required in the existing system of H.Sc. education policy and its relevance to H.Sc. Programme planning-concept, prin ciples objectives and steps in programme planning.

REFERENCE :

- 1 Extension education and community development by Dhama O. P.
- 2 Co-operative Extension Work by Kelsey, L.D. and Heame C. R.
- 3 Extension education, Shri Lakshmi press by Reddy A. A.
- 4 An Introduction to programme evaluation John Wiley
- Fracklin, J. K. & Thrashe / J.H.

- - - - -

नवीन संशोधित पाठ्यक्रम
बी.ए. प्रथम वर्ष , इतिहास
प्रश्न पत्र –प्रथम
भारत का इतिहास, प्रारंभ से 1206 ई. तक

इकाई-1

1. भारत की भौगोलिक संरचना
2. भारतीय इतिहास के स्त्रोंतों का सर्वेक्षण
3. पूर्ण पाषाण काल एवं उत्तर पाषाण काल
4. हड़प्पा सभ्यता- निर्माता, प्रसार, नगर योजना, राजनीतिक सामाजिक, आर्थिक संरचना

इकाई-2

5. ऋगवैदिक काल – राजनीतिक, सामाजिक, आर्थिक
6. ईसा पूर्व छठवीं शताब्दी का भारत –महाजनपद काल
7. जैन एवं बौद्ध धर्म
8. सिंकदर का आक्रमण और उसका प्रभाव

इकाई-3

9. चंद्रगुप्त मौर्य एवं अशोक
10. मौर्य प्रशासन, कला एवं संस्कृति, अशोक का धम्म
11. मौर्योत्तरकाल – शुंग, कुषाण एवं सातवाहन
12. संगमयुग- साहित्य, संस्कृति, चोल एवं पाण्ड्य

इकाई-4

13. गुप्तयुग- समुद्रगुप्त की विजयें एवं चंद्रगुप्त द्वितीय, प्रशासन, आर्थिक, सामाजिक, सांस्कृतिक दशा
14. राजपूतों की उत्पत्ति एवं प्रशासनिक तथा सामाजिक विशेषताएं
15. पल्लव, चालुक्य, वर्धन, पाल, राष्ट्रकुट
16. भारत का दक्षिण पूर्व एशिया एवं श्रीलंका से संबंध
17. मोहम्मद बिन कासिम, महमूद गजनवी एवं मुहम्मद गोरी का आक्रमण

इकाई 5

18. छत्तीसगढ़ का परिचय- नामकरण एवं भौगोलिक स्थिति
19. छत्तीसगढ़ के प्रमुख क्षेत्रीय राजवंश-पाण्डुवंश, शरभपुरीय,
20. छत्तीसगढ़ के प्रमुख राजवंश- नलवंश, छिन्दक नागवंश,
21. दक्षिण कोसल के कलचुरी वंश, राजनीतिक एवं प्रशासनिक व्यवस्था

संदर्भ ग्रन्थ सूची:-

1. रतिभानु सिंह नाहर प्राचीन भारतीय इतिहास एवं संस्कृति
2. शांता शुक्ला भारत का राजनीतिक इतिहास
3. द्विजेन्द्र नारायण एवं श्रीमाली प्राचीन भारत
4. ओम प्रकाश प्राचीन भारत
5. बी.एन. लूनिया प्राचीन भारतीय संस्कृति
6. एस.आर. शर्मा प्राचीन भारत— प्रगैतिहासिक युग से 1200 ई. तक
7. K.L. Khurana Ancient India from Earliest Time to 1206 A.D.
8. K.L. Khurana History of India from Earliest Time to 1526 A.D
9. Vincent Smith Oxford History of India
10. भार्गव प्राचीन भारत
11. L. Prasad Ancient India- Indus Valley Civilization to 1200 A.D
12. भगवान सिंह वर्मा छत्तीसगढ़ का इतिहास प्रारंभ से 1947ई. तक
13. राम कुमार बेहार छत्तीसगढ़ का इतिहास
14. ऋषिराज पांडे दक्षिण कौशल के कल्चुरी
15. व्ही.व्ही. मिराशी कल्चुरी नरेश और उनका काल
16. सुरेश चंद्र शुक्ला छत्तीसगढ़ का समग्र अध्ययन
17. किशोर अग्रवाल बीसवीं शताब्दी का छत्तीसगढ़
18. सुरेश चंद्र शुक्ला एवं अर्चना शुक्ला छत्तीसगढ़ की रियासतों का विलीनीकरण
19. लाला जगदलपुरी बस्तर इतिहास एवं संस्कृति
20. प्यारेलाल गुप्त प्राचीन छत्तीसगढ़
21. सी.एल. शर्मा छत्तीसगढ़ की रियासतें
22. हीरालाल शुक्ल छत्तीसगढ़ का जनजातीय इतिहास
23. पी.एल. मिश्र मुगलकालीन छत्तीसगढ़

बी.ए. प्रथम वर्ष , इतिहास
प्रश्न पत्र – द्वितीय
विश्व का इतिहास—1453 ई. से 1890 ई. तक

इकाई—1

1. यूरोप में आधुनिक युग की विशेषताएँ, पुनर्जागरण
2. धर्म सुधार एवं प्रति धर्म सुधार आंदोलन
3. राष्ट्रीय राज्यों का उदय स्पेन, फ्रांस
4. राष्ट्रीय राज्यों का उदय इंग्लैण्ड, रूस

इकाई—2

5. वाणिज्यवाद, उपनिवेशवाद
6. औद्योगिक क्रान्ति
7. इंग्लैण्ड में गृह युद्ध : घटनाएँ, कारण एवं परिणाम
8. गौरव पूर्ण क्रान्ति (1688)

इकाई—3

9. अमेरिका का स्वतंत्रता संग्राम
10. फ्रांस की क्रान्ति के कारण एवं प्रभाव
11. नेपोलियन युग
12. विएना कांग्रेस

इकाई—4

13. अनुदारवाद— मैटरनिक, आंतरिक एवं विदेश नीति
14. यूरोप में 1830 ई. एवं 1848 ई. की क्रान्ति
15. इंग्लैण्ड में उदारवाद 1832 एवं 1867 ई. का सुधार अधिनियम
16. पूर्वी समस्या— कारण, क्रीमिया युद्ध, बर्लिन सम्मेलन

इकाई—5

17. इटली का एकीकरण
18. जर्मनी का एकीकरण
19. बिस्मार्क की गृह नीति

20. बिस्मार्क की विदेश नीति

संदर्भ ग्रन्थ सूची:-

1. बी. एन. मेहता अर्वाचीन यूरोप
2. K.L. Khurana History of Modern World
3. Khurana And Sharma Modern Europe 1453- 1789 A.D.
4. जैन एवं माथुर आधुनिक विश्व
5. कौलेश्वर राय आधुनिक यूरोप
6. मथुरा लाल शर्मा संयुक्त राज्य अमेरिका का इतिहास
7. वी.एस. माथुर संयुक्त राज्य अमेरिका का इतिहास
8. बी.एन. लूणिया आधुनिक पाश्चात्य इतिहास की प्रमुख धाराएं
9. एल.पी. शर्मा इंग्लैंड का इतिहास
10. वी.डी. महाजन इंग्लैंड का इतिहास
11. जे.आर. काम्बले अमेरिका का इतिहास
12. A.C. Gupta A History of China
13. विपिन बिहारी सिन्हा आधुनिक ग्रेट ब्रिटेन

सत्र 2019–20 से प्रस्तावित

बी.ए. द्वितीय वर्ष

संस्कृत साहित्य

टीप – बी.ए. द्वितीय वर्ष में संस्कृत साहित्य के दो प्रश्न-पत्र होंगे एवं दोनों प्रश्न-पत्र 75–75 अंकों के होंगे ।

प्रथम प्रश्नपत्र

नाटक, व्याकरण तथा रचना

पूर्णांक – 75

इकाई –1	नागानन्द नाटकम् (हर्षवर्धनकृत)	अंक – 15
	1. एक ससन्दर्भ व्याख्या	
	2. दो सूक्तियों की व्याख्या	
इकाई –2	नागानन्द नाटकम् – समीक्षात्मक प्रश्न	अंक – 15
इकाई –3	व्याकरण (लघुसिद्धान्तकौमुदी)	अंक – 15
	कर्तृवाच्य, कर्मवाच्य, भाववाच्य	
इकाई –4	व्याकरण (लघुसिद्धान्तकौमुदी)	अंक – 15
	समास प्रकरण	
इकाई –5	वाक्यरचना	अंक – 15
	व्याकरण के अधीत अंश पर आधारित छह संस्कृत शब्दों से वाक्यरचना	

अनुशासित ग्रन्थ –

1. नागानन्द नाटक – हर्षवर्धन, प्रकाशक – चौखम्बा विद्याभवन, वाराणसी
2. रचनानुवाद कौमुदी – डा. कपिलदेव द्विवेदी
3. संस्कृत में अनुवाद कैसे करें – उमाकान्त मिश्र शास्त्री, प्रकाशक – भारती भवन
4. लघु सिद्धान्त कौमुदी – श्रीधरानन्द शास्त्री
5. लघु सिद्धान्त कौमुदी – श्री महेश सिंह कुशवाहा, प्रकाशक – चौखम्बा विद्याभवन, वाराणसी
6. शीघ्रबोधव्याकरणम् – डा. पुष्पा दीक्षित, पाणिनीय शोध संस्थान, तेलीपारा, बिलासपुर

सत्र 2019–20 से प्रस्तावित
बी.ए. द्वितीय वर्ष
संस्कृत साहित्य
द्वितीय प्रश्नपत्र

	नाटक, व्याकरण और अनुवाद	पूर्णांक – 75
इकाई –1	रघुवंशमहाकाव्यम् (द्वितीय सर्गः) दो श्लोकों की व्याख्या	अंक – 15
इकाई –2	रघुवंशमहाकाव्य के समीक्षात्मक प्रश्न	अंक – 15
इकाई –3	नीतिशतकम् (भर्तृहरिकृत) दो श्लोकों की व्याख्या	अंक – 15
इकाई –4	साहित्येतिहासः नाटक, महाकाव्य तथा गद्यकाव्य – अभिज्ञानशाकुन्तल, उत्तररामचरित, वेणीसंहार, मुद्राराक्षस, मृच्छकटिक, रघुवंश, कुमारसंभव, बुद्धचरित, सौन्दरनन्द, पद्मचूडामणि, सुग्रीववध, किरातार्जुनीय, भट्टिकाव्य, जानकीहरण, शिशुपालवध, नैषधीयचरित, हरविजय, नवसाहस्रान्तकचरित, विक्रमांकदेवचरित, राजतरंगिणी । वासवदत्ता, दशकुमारचरित, कादम्बरी, हर्षचरित, तिलकमंजरी, गद्यचिन्तामणि, शिवराजविजय ।	अंक – 15
इकाई –5	साहित्येतिहासः गीतिकाव्य, मुक्तक तथा कथा साहित्य – शतकत्रय (भर्तृहरि), ऋतुसंहार, मेघदूत, अमरुकशतक, गीतगोविन्द, भामिनीविलास, पंचलहरी, नलचम्पू, रामायणचम्पू, भारतचम्पू, वरदाम्बिकापरिणय, पंचतंत्र, हितोपदेश, बेतालपंचविंशति, शुकसप्तति, कथासरित्सागर, बृहत्कथामंजरी, कथामुक्तावली, इक्षुगन्धा । (उल्लिखित रचनाओं एवं रचनाकारों का सामान्य परिचय अपेक्षित है ।)	अंक – 15

अनुशासित ग्रन्थ –

1. रघुवंशमहाकाव्य – कालिदास, प्रकाशक – मोतीलाल बनारसीदास
2. नीतिशतकम् – भर्तृहरि, प्रकाशक – चौखम्बा विद्याभवन, वाराणसी
3. संस्कृत साहित्य का इतिहास – आचार्य बलदेव उपाध्याय
4. संस्कृत साहित्य का अभिनव इतिहास – डा. राधावल्लभ त्रिपाठी, वि.वि. प्रकाशन, सागर, म.प्र.

- इकाई 1 : प्लेटो : आदर्श राज्य – न्याय, शिक्षा, साम्यवाद, दार्शनिक शासक ।
अरस्तू : राज्य, दासप्रथा, नागरिकता , क्रान्ति ।
- Unit 1 : Plato : Ideal State : Justice, Education, Communism , Philosopher King.
Aristotle : State, Slavery, Citizenship , Revolution.
- इकाई 2 : मैकियावेली : युग का शिशु, धर्म व नैतिकता, राजा के कर्तव्य और आचरण ।
हॉब्स : सामाजिक समझौता सिद्धान्त – लेवियाथन । लॉक : सामाजिक समझौता सिद्धान्त ।
रुसो : सामाजिक समझौता सिद्धान्त , सामान्य इच्छा ।
- Unit 2 : Machiavelli : Child of his times, Religion and Morality, Duties and Conduct of King. Hobbes : Social Contract Theory: Leviathan. Locke : Social Contract Theory. Rousseau : Social Contract Theory and General Will.
- इकाई 3 : बेंथम : उपयोगितावाद । मिल : उपयोगितावाद में संशोधन, स्वतंत्रता और प्रतिनिधि शासन ।
ग्रीन : राजनीतिक विचार । मार्क्स : राजनीतिक विचार ।
- Unit 4 : Bentham : Utilitarianism. Mill : Amendment in Utilitarianism. Liberty and Representative Government. Green : Political Thoughts. Marx : Political Thoughts.
- इकाई 4 : आदर्शवाद, व्यक्तिवाद, उदारवाद, समाजवाद, फासीवाद : विशेषताएं और आलोचना ।
- Unit 4 : Idealism, Individualism, Liberalism, Socialism, Fascism : Features and Criticism.
- इकाई 5 : मनु और कौटिल्य : सप्तांग सिद्धान्त, राजा और राजपद, प्रशासकीय व्यवस्था, राज्यमण्डल ।
गांधी : सत्य, अहिंसा, सत्याग्रह एवं राजनीतिक विचार । अम्बेडकर : राजनीतिक एवं सामाजिक विचार
दीनदयाल उपाध्याय : एकात्ममानववाद ।
- Unit 5 : Manu and Kautilya : Saptang Theory, King and Kingship, Administrative System, Rajyamandal.
Gandhi : Truth , Non violence , Satyagrah and Political thoughts.
Ambedkar : Political and Social thoughts.
Deen Dayal Upadhyay : Akatmamanavvad.

बी.ए.द्वितीय वर्ष
प्रथम प्रश्न पत्र राजनीतिक चिन्तन

क्र	पुस्तक का नाम	लेखक का नाम
1.	राजनीतिक चिन्तन की रूपरेखा	ओ.पी. गावा
2.	राजनीतिक चिन्तन का इतिहास	जीवन मेहता
3.	राजनीतिक चिन्तन का इतिहास	बी.एल. फाडिया
4.	पाश्चात्य एवं आधुनिक राजनीतिक चिन्तन का इतिहास	प्रभु दत्त शर्मा
5.	पाश्चात्य राजनीतिक चिन्तन	जे.पी. सूद
6.	भारतीय राजनीतिक चिन्तन	वी.पी. वर्मा
7.	भारतीय राजनातिक चिन्तन	अवस्था एव अवस्था
8.	भारतीय राजनातिक चिन्तन	आ.पा. गावा
9.	पालाटकल थॉट	सा.एल. बपर
10.	हिस्ट्री ऑफ पालीटिकल थियरी	जार्ज एच सेबाइन
11.	रिसेन्ट पालीटिकल थॉट	फ्रान्सीस डब्लू कोकर
12.	मास्टर ऑफ पालीटिकल थॉट	माईकल बी. फास्टर
13.	ग्रेट पालीटिकल थॉट	विटियम इवेस्टीन

Reference:-

- W.A. Dunning: **A History of Political Theories**, (Vols. I, II & III), New York: Mcmillan, 1930
- G.H. Sabine: **A History of Political Theory** (English & Hindi), New Delhi: Oxford & IBH Publishing Co., 1963
- C.L. Wayper: **Political Thought** (English & Hindi), Bombay: B.I. Publications Pvt. Ltd., 1974
- E. Barker: **Greek Political Theory: Plato and His Predecessors**, London: Methuen & Co. Ltd., 1918
- **Political Thought in England**, London: Thornton Butterworth Ltd., 1928
- Gettell: **History of Political Thought** (English & Hindi)
- K.P. Jaiswal: **Hindu Polity** (English & Hindi), Bangalore: Bangalore Printing & Publishing Co., 1955
- V.P. Verma: **Modern Social and Political Thought of India**, Agra: L.N. Agrawal Educational Publishers, 1961
- N.C. Bandopadhyaya: **Development of Hindu Polity and Political Theory**, New Delhi: Munshiram & Manoharlal, 1980
- Arvind Sharma, **Modern Hindu Thought: The Essential Texts**, New Delhi: OUP, 2002
- John Dunn, **Western Political Theory in the Face of the Future**, New York: Cambridge University Press, 1993
- Jonathan Wolff, **An Introduction to Political Philosophy**, Revised Edition, Oxford: OUP, 2006
- J.E. Parsons Jr., **Essays in Political Philosophy**, Washington D.C., University Press of America, 1982

- Mark N. Hagopian, *Ideals and Ideologies of Modern Politics*, New York & London: Longman, 1985
- John Elster (Ed.) *Karl Marx: A Reader*, New York: OUP, 1977
- Thomas Sowell, *Marxism: Philosophy and Economics*, New York: Quill, 1985
- Brian R. Nelson, **Western Political Thought**, Delhi NCR: Pearson Education Ltd., 1996
- Vishwanath Mishra, **Rajavidya evam Rajanitishashtra**, Sagar: Vishwavidyalaya Prakashan, 2007

Brian R. Nelson, **Western Political Thought**, Delhi NCR: Pearson Education Ltd., 1996

द्वितीय प्रश्नपत्र : तुलनात्मक शासन एवं राजनीति Paper II : Comparative Government and Politics

- इकाई 1 : ब्रिटिश संविधान : विकास, विशेषताएं, कार्यपालिका , व्यवस्थापिका, न्यायपालिका ।
- Unit 1 : British Constitution : Evolution , Salient Features, Executive, Legislature and Judiciary.
- इकाई 2 : संयुक्त राज्य अमेरिका का संविधान : विशेषताएं, कार्यपालिका , व्यवस्थापिका, न्यायपालिका , शक्ति पृथक्करण व नियंत्रण संतुलन का सिद्धान्त ।
- Unit 2 : Constitution of United States of America : Salient Features, Executive, Legislature and Judiciary. Theory of Separation of Powers and checks and balances.
- इकाई 3 : स्विटजरलैण्ड का संविधान : विशेषताएं, कार्यपालिका , व्यवस्थापिका, न्यायपालिका , प्रत्यक्ष प्रजातन्त्र । Unit 3 : Constitution of Switzerland : Salient Features, Executive, Legislature and Judiciary. Direct Democracy.
- इकाई 4 : चीन का संविधान : विशेषताएं, कार्यपालिका , व्यवस्थापिका, न्यायपालिका, साम्यवादी दल ।
- Unit 4 : Constitution of China : Salient Features, Executive, Legislature and Judiciary. Communist Party.
- इकाई 5 : तुलनात्मक राजनीति : अर्थ, परिभाषा, । ईस्टन का व्यवस्था सिद्धान्त, आमण्ड का संरचनात्मक-प्रकार्यात्मक उपागम । राजनीतिक विकास, राजनीतिक समाजीकरण, राजनीतिक संस्कृति की अवधारणा ।
- Unit 5 : Comparative Politics : meaning , Definition. System Theory of David Easton, Structural -functional Approach of Almond. Concept of Political Development, Political Socialisation, Political Culture

बी.ए. द्वितीय वर्ष
प्रश्न पत्र
तुलनात्मक शासन एवं राजनीति

सन्दर्भ

ग्रन्थ

सूची:-

क्र	पुस्तक का नाम	लेखक का नाम
1.	तुलनात्मक राजनीति एवं राजनीतिक संस्थाएं	सी बी गेना
2.	तुलनात्मक राजनीति	जे.सी. जौहरी
3.	तुलनात्मक राजनीति	पी.डी शर्मा
4.	तुलनात्मक राजनीति	एस.आर. महेष्वरी
5.	तुलनात्मक राजनीति संस्थाएं और प्रक्रियाएं	तपन बिस्वाल
6.	कम्परेटीव गर्वनेमेंट	एस.ई. फाईनर

Reference :-

- Anup Chand Kapur, K.K. Mishra **Select Constitutions** (U.K., U.S.A., France, Canada, Switzerland, Japan, China, India), S. Chand & Company Ltd., New Delhi, 2001.
- B.C. Rai, **The World Constitution: A Comparative Study** (U.S.A., U.K., Soviet Union, Switzerland, Japan, France, Australia, Canada, India, Pakistan), Prakashan Kendra, Lucknow, 2001
- G. Almond et.al., **Comparative Politics Today : A World View**, 7th Edition, New York/London, Harper Collins, 2000
- R. Hague & M. Harrop, **Comparative Government and Politics: An Introduction**, 5th Edition, New York, Palgrave, 2001
- A Bobler and J. Seroka (eds.); **Contemporary Political System: Classification and Typologies**, Boulder Colorado, Lyne Reinner Publishers, 1990.
- Richa Sakma, **Russian Politics and Society**, London: Routledge, 1996.
- Anuradha Chenoy, **The Making of New Russia**, New Delhi, Har-Anand Publications, 2000
- Shashi Kant Jha & Bhaswati Sarkar (eds.) **Amidst Turbulence & Hope, Transition Russia and Eastern Europe**, New Delhi, 2002
- Thomas F. Remington, **The Russian Parliament: Institutional Evolution in a Transitional Regime**, 1989-1999, Yale University Press, 2002
- Gabriel A. Almond and G. Bingham Powell (eds.) **Comparative Politics Today: A World view**, Harper Collins Publishers, 2002

- **The Russian Constitution**, Text as adopted in 1993
- J. C. Johri, '**New Comparative Government**', Lotus Press Publisher, 2008.
- Vidya Bhushan and Vishnu Bhagwan, **World Constitutions**, New Delhi

नवीन संशोधित पाठ्यक्रम

दर्शन शास्त्र

बी.ए. भाग-दो, दर्शन शास्त्र में दो प्रश्न पत्र (75 अंक) के होंगे

1. नीति शास्त्र – भारतीय एवं पाश्चात्य
2. धर्म दर्शन

प्रत्येक प्रश्न पत्र पांच इकाईयों में विभाजित है । प्रत्येक इकाई में से एक प्रश्न हल करना अनिवार्य होगा ।

बी.ए. भाग – दो

दर्शन शास्त्र

प्रश्न पत्र – प्रथम

नीतिशास्त्र – भारतीय एवं पाश्चात्य

(कुल 75 अंक)

- इकाई-1
1. नीतिशास्त्र : परिभाषा, स्वरूप एवं उपयोगिता
 2. मूल्य : नैतिक मूल्य एवं अन्य मूल्यों में अंतर
 3. कर्म का सिद्धांत
- इकाई-2
1. पुरुषार्थ : पुरुषार्थों का आपस में सम्बन्ध, पुरुषार्थ- साधना
 2. बौद्ध नीति : चार आर्य सत्य
 3. जैन नीति : अणुव्रत एवं महाव्रत
- इकाई-3
1. संकल्प की स्वतंत्रता एवं उत्तरदायित्व
 2. दण्ड का सिद्धांत
 3. सद्गुण : सुकरात , प्लेटो एवं अरस्तू के अनुसार
- इकाई -4
1. सुखवाद : बेंथम एवं मिल
 2. चार्वाक का सुखवाद
 3. कांट : कर्तव्य के लिए कर्तव्य
- इकाई -5
1. अंतः प्रज्ञावाद
 2. पूर्णतावाद
 3. गीता का निष्काम कर्मयोग

उपरोक्त समस्त संशोधन विषय की स्पष्टता व ज्ञानवर्धन को ध्यान में रखकर समिति के सभी सदस्यों की सहमति से किया गया ।

नवीन संशोधित पाठ्यक्रम

बी.ए. भाग –दो

दर्शन शास्त्र

प्रश्न पत्र द्वितीय

धर्म दर्शन

(कुल अंक –75)

- इकाई-1
1. धर्म : धर्म एवं रिलिजन में अंतर
 2. धर्म-दर्शन : अर्थ, स्वरूप
 3. धर्म एवं धर्म-दर्शन में अंतर
 4. धर्म की उत्पत्ति के सिद्धांत
- इकाई-2
1. धार्मिक अनुभव : ब्रह्मानुभव एवं रहस्यवाद
 2. बुद्धि, विश्वास एवं अंतः प्रज्ञा
 3. धार्मिक विश्वास एवं अन्य विश्वास
- इकाई-3
1. ईश्वर : ईश्वर के गुण
 2. ईश्वर के अस्तित्व के प्रमाण : भारतीय एवं पाश्चात्य
 3. प्रार्थना एवं भक्ति
- इकाई-4
- 1 अनीश्वरवाद
 2. ईश्वर के बिना धर्म
 3. धर्म- निरपेक्षता
- इकाई-5
- 1 आत्मा की अमरता
 2. पुनर्जन्म एवं कर्म का सिद्धांत
 3. अशुभ की समस्या

उपरोक्त समस्त संशोधन विषय की स्पष्टता व ज्ञानवर्धन को ध्यान में रखकर समिति के सभी सदस्यों की सहमति से किया गया ।

नवीन संशोधित पाठ्यक्रम

दर्शन शास्त्र

बी.ए. भाग तीन दर्शन शास्त्र विषय में कुल दो प्रश्न पत्र होंगे तथा प्रत्येक में 75 अंक होंगे। प्रत्येक प्रश्न पत्र पांच इकाईयों में विभाजित है। प्रथम प्रश्न पत्र 'तर्कशास्त्र' अनिवार्य है। द्वितीय प्रश्न पत्र में दो विकल्प दिये गये हैं –

1. ज्ञान मीमांसा एवं तत्त्व मीमांसा (भारतीय एवं पाश्चात्य)
2. ग्रीक दर्शन

बी.ए. द्वितीय वर्ष
B.A. Part II Paper I

प्रथम : प्रश्न-पत्र

प्राचीन भारतीय सामाजिक तथा आर्थिक संस्थाएं (पेपर कोड 0134)
Ancient Indian Social and Economic Institution

पूर्णांक : 75

उद्देश्य : इस पाठ्यक्रम का उद्देश्य प्राचीन भारत की सामाजिक तथा आर्थिक संस्थाओं का सामान्य ज्ञान कराना है।

- इकाई- 1 (1) वर्णाश्रम व्यवस्था (Varna System)
(2) आश्रम व्यवस्था (Ashramas)
(3) पुरुषार्थ चतुष्टय (Purushartha Chatushtaya)
(4) पंचमहायज्ञ (Pancha mahayagya)
- इकाई- 2 (1) संस्कार (Sanskaras)
(2) विवाह तथा उसके प्रकार (Marriage and their types)
(3) परिवार की उत्पत्ति तथा महत्व, संयुक्त परिवार, पिता,माता, तथा पुत्र की स्थिति, पुत्रों के प्रकार (Origin of Family and its Significance, Joint Family, position of Father, Mother and Sons; Types of Son)
- इकाई- 3 (1) नारियों की स्थिति (Position of Women)
(2) शिक्षा-उद्देश्य, आदर्श, उपलब्धियों तथा प्रमुख शिक्षा केन्द्र (Objectives of Education, Model, Achievements and Important education Centres)
- इकाई- 4 (1) वैदिक काल से 600 ई.पू. तक प्राचीन भारत की आर्थिक दशा (Economic Condition of Ancient India from Vedic age to 600 B.C.)
(2) श्रेणियों का संगठन और कार्य (Organisation and working of Guilds)
(3) 600 ई.पू. से 319 ई. तक प्राचीन भारत की आर्थिक दशा (Economic Condition of Ancient India from 600 B.C. to 319 A.D.)
- इकाई- 5 (1) 319 ई से 1200 ई. तक प्राचीन भारत की आर्थिक दशा (Economic Condition of Ancient India from 319A.D. to 1200 A.D.)
(2) आंतरिक और बाह्य व्यापारिक मार्ग (Domestic and International trade routes)

सहायक ग्रंथ :

- | | |
|---|---|
| 1. मनोरमा जौहरी | - प्राचीन भारतीय वर्णाश्रम व्यवस्था |
| 2. जयशंकर मिश्र | - भारत की सामाजिक इतिहास |
| 3. के.सी.जैन | - प्राचीन भारतीय सामाजिक तथा आर्थिक संस्थाएं |
| 4. राजबली पाण्डेय | - हिन्दू संस्कार |
| 5. हरिदत्त वेदालंकार | - हिन्दू परिवार मीमांसा |
| 6. ए.एस.अल्तेकर | - प्राचीन भारत में नारियों की स्थिति |
| 7. आर.एस.शर्मा | - प्राचीन भारत में शूद्रों की स्थिति |
| 8. ए.एस.अल्तेकर | - प्राचीन भारतीय शिक्षण पद्धति |
| 9. रमेशचन्द्र मजुमदार (अनु.कृष्णदत्त बाजपेयी) | - प्राचीन भारत में संगठित जीवन |
| 10. मोतीचन्द्र | - सार्थवाह |
| 11. कृष्णदत्त बाजपेयी | - भारतीय व्यापार का इतिहास |
| 12. कृष्णदत्त बाजपेयी | - प्राचीन भारत का विदेशों में संबंध |
| 13. आर.एस.शर्मा | - पूर्व मध्यकालीन भारत में सामाजिक परिवर्तन |
| 14. डॉ. चन्द्रदेव सिंह | - प्राचीन भारतीय समाज और चिन्तन |
| 15. सुस्मिता पाण्डेय | - समाज, आर्थिक व्यवस्था एवम् धर्म |
| 16. P.N. Prabhu | - Hindu Social Organization |
| 17. S.K. Maity | - The Economics life of Northern India in the Gupta Period. |
| 18. L.Gopal | - Economic life of Northern Indian |
| 19. D.R. Das | - Economics History of the Deccan |
| 20. शिव स्वरूप सहसा | - प्राचीन भारतीय सामाजिक, आर्थिक संस्थाएं |

बी.ए. द्वितीय वर्ष
द्वितीय : प्रश्न-पत्र
B.A. Part II Paper II
प्राचीन भारतीय राजनय तथा प्रशासन (पेपर कोड 0205)
Ancient Indian Polity and Administration

पूर्णांक : 75

- इकाई- 1 राज्य की उत्पत्ति, प्रकार, स्वरूप तथा कार्य।
(Origin, types, form, and function of State)
- इकाई- 2 राजपद, मंत्रिपरिषद्-संगठन एवं कार्य, सप्तांग सिद्धांत।
(Kingship; organisation and working of Council of Ministers; Theory of Saptanga)
- इकाई- 3 गणराज्य : संगठन, शासन, पद्धति, गुण-दोष
(Republics: organisation, government, system, Pros & Cons)
- इकाई- 4 अंतर्राष्ट्रीय संबंध, मण्डल सिद्धांत, षाडगुण्य सिद्धांत, दूत व्यवस्था, गुप्तचर व्यवस्था।
(International Relation, Principle of Mandala, Principle of Shadgunya, Ambassadors, Espionage)
- इकाई- 5 विभिन्न राजवंशों की प्रशासन व्यवस्था :
मौर्य, गुप्त, हर्ष कालीन वंश की प्रशासन, राष्ट्रकूट एवं चोलवंश।
(Administrative system of various Dynasties: Mauryas, Guptas, period of Harsha, Rashtrakutas and Cholas)

अनुशासित पुस्तके :

- | | |
|----------------------------|--|
| 1. अनंत सदाशिव अल्तेकर | — प्राचीन भारतीय शासन पद्धति (Ancient Indian Administration) |
| 2. काशी प्रसादा जायसवाल | — हिन्दू राजतंत्र, भाग 1, 2 (Hindu Polity) |
| 3. डॉ. रवीन्द्रनाथ अग्रवाल | — मध्यप्रदेश क्षेत्र के अंतर्राष्ट्रीय संबंधों का अध्ययन |
| 4. सत्यकेतु विद्यालंकर | — प्राचीन भारतीय शासन व्यवस्था एवं राज्य शास्त्र |
| 5. मनोरमा जौहरी | — प्राचीन भारत में राज्य और शासन व्यवस्था |
| 6. हरिश्चन्द्र शर्मा | — प्राचीन भारतीय राजनीतिक विचारक एवं संस्थाएं |
| 7. राधाकृष्ण चौधरी | — प्राचीन भारतीय राजनीति एवं शासन व्यवस्था |

बी.ए. द्वितीय वर्ष , इतिहास
प्रश्न पत्र— प्रथम
भारत का इतिहास 1206 ई. से 1761 ई. तक

इकाई—1

1. सल्तनत कालीन एवं मुगल कालीन इतिहास के स्रोत
2. दास वंश— ऐबक, इल्तुतमिश, बलबन
3. खिलजी वंश— अलाउद्दीन खिलजी—सैनिक उपलब्धियां, राजस्व व्यवस्था एवं बाजार नियंत्रण
4. तुगलक वंश— मोहम्मद बिन तुगलक

इकाई—2

5. मुगल साम्राज्य की स्थापना — बाबर एवं हुमायूँ
6. शेरशाह सूरी का प्रशासन
7. अकबर की राजपूत नीति
8. मुगल शासकों की धार्मिक नीति — अकबर से औरंगजेब तक

इकाई—3

9. मुगल प्रशासन
10. मध्यकालीन सामाजिक एवं आर्थिक दशा
11. भक्ति आंदोलन
12. सूफीवाद

इकाई—4

13. मध्यकालीन साहित्य, कला एवं स्थापत्य
14. विजयनगर राज्य
15. बहमनी राज्य
16. शिवाजी का प्रशासन

इकाई—5

17. पेशवा— बालाजी विश्वनाथ, बालाजी बाजीराव
18. पानीपत का तृतीय युद्ध— कारण एवं परिणाम
19. मराठों के अधीन छत्तीसगढ़ — बिम्बाजी भोसले
20. छत्तीसगढ़ में मराठा प्रशासन

संदर्भ ग्रन्थ सूची:-

1. श्रीवास्तव ए.एल
 2. श्रीवास्तव ए.एल
 3. श्रीवास्तव ए.एल
 4. हबीबुल्लाह
 5. मजूमदार, राय चौधरी एवं दत्त
 6. पंजाबी बी. के.
 7. हबीब एवं निजामी
 8. वर्मा हरिशचंद
 9. शर्मा कालूराम एवं व्यास प्रकाश
 10. सक्सेना आर.के.
 11. राधेशरण
 12. पाण्डेय ए.बी.
 13. पांडेय ए.बी.
 14. ईश्वरी प्रसाद
 15. श्रीवास्तव एच.एस.
 16. सरदेसाई जी.एस.
 17. सरकार जे.एन.
 18. त्रिपाठी आर.पी.
 19. मित्तल ए.के.
 20. मित्तल ए.के.
 21. Dey, U.N.
 23. Habib & Nizami
 24. Majumdar, R. C. & Dutt
 25. Mehta
 26. Pandey A.B.
 27. Pandey A.B
 28. Prasad Ishwari
 29. Sarkar, J.N.
 30. Satish Chandra
 31. Niraj Shrivastav
 32. पी.एल. मिश्र
 33. भगवान सिंह वर्मा
- भारत का इतिहास (अंग्रेजी अनुवाद)
दिल्ली सल्तनत (अंग्रेजी अनुवाद)
मुगलकालीन भारत (अंग्रेजी अनुवाद)
भारत में मुस्लिम शासन की बुनियाद
भारत का वृहत् इतिहास खंड-2
भारत का इतिहास (1206-1761)
दिल्ली सल्तनत
मध्यकालीन भारत (750-1540)
मध्यकालीन भारतीय संस्कृति
दिल्ली सल्तनत
भारत की सामाजिक एवं आर्थिक संरचना और संस्कृति के मूल तत्व (आदिकाल से 1950 ईस्वी तक)
पूर्व मध्यकालीन भारत
उत्तर मध्यकालीन
मुगलकालीन भारत
मुगलकालीन शासन व्यवस्था
मराठों का नवीन इतिहास खंड-2
शिवाजी और उनका युग
मुगल साम्राज्य का इतिहास और पतन
यूनिफाइड इतिहास (प्रारंभ से 1761 ई.)
यूनिफाइड इतिहास प्राचीन काल से 1950 ईस्वी तक
Mughal Government
Comprehensive History of India
An Advanced History of India Vol-II
Advanced Study in the Medieval History of India
Early Medieval India
Medieval India
Medieval India
Shivaji and his Time
Madhyakalin Bharat
Madhyakalin Bharat Prashasan, Samaj, Sanskriti
मराठाकालीन छत्तीसगढ़
छत्तीसगढ़ का इतिहास

बी.ए. द्वितीय वर्ष इतिहास
प्रश्न पत्र – द्वितीय
विषय का इतिहास 1890 ई. से 1964 ई. तक

इकाई-1

1. विलियम द्वितीय की विश्व राजनीतिक
2. अफ्रीका का विभाजन
3. जापान का आधुनिकीकरण- मेईजी पुनर्स्थापना एवं जापान का आधुनिकीकरण
4. रूस-जापान युद्ध : कारण एवं परिणाम

इकाई-2

5. चीन अफीम युद्ध एवं चीन की क्रांति, साम्यवाद
6. पूर्वी समस्या -बर्लिन कांग्रेस, युवा तुर्क आंदोलन
7. बाल्कन युद्ध : कारण एवं परिणाम
8. प्रथम विश्व युद्ध : कारण एवं परिणाम

इकाई-3

9. वर्साय की संधि
10. रूस की क्रांति 1917 ई.
11. फासीवाद - मुसोलिनी
12. नाजीवाद -हिटलर

इकाई-4

13. जापान का सैन्यवाद
14. राष्ट्रसंघ : स्थापना एवं विल्सन के 14 सूत्र
15. द्वितीय विश्वयुद्ध : कारण एवं परिणाम
16. संयुक्त राष्ट्र संघ - स्थापना एवं संगठन, उपलब्धियां

इकाई-5

17. शीत युद्ध
18. गुट निरपेक्ष आंदोलन एवं पंचशील सिद्धान्त
19. विश्व शांति की चुनौती- कोरिया एवं फिलीस्तीन समस्या
20. एक ध्रुवीय विश्व

संदर्भ ग्रन्थ सूची:-

1. हेजन आधुनिक यूरोप का इतिहास
2. बी.आई. पाल आधुनिक यूरोप का इतिहास
3. HAL Fisher A History of Europe
4. Christopher From Reformation to Industrial Revolution
5. A.J.P. Taylor The origins of the second war
6. David Thompson Europe, Nepelean
7. सत्यकेतु विद्यालंकार एशिया का इतिहास
8. दीनानाथ वर्मा आधुनिक यूरोप का इतिहास
9. Grant and Temperley Europe in the 19th and 20th Century (also Hi—Version)
10. Kettelby History of the Modern Times
11. Moon Imperialism In World Politics
12. Plamor & Parkins International Politics
13. Parks, Hengy Bamford The United States of America A History
14. Panikkar K.M. Asia and Western Dominance
15. Schuman International Politics
16. Taylor, A.J.P. Struggle for Mastery over Europe
17. Vinacke, H.M. A History of Far East In Modern Times
18. Fay Origins of the World War
19. के.एल.खुराना एवं शर्मा विश्व का इतिहास
20. देवेन्द्र सिंह चौहान समकालीन यूरोप
21. S.P. Nanda History of Modern World
22. सुरेश चंद्र एवं शिवकुमार आधुनिक विश्व का इतिहास
23. कालू राम शर्मा आधुनिक विश्व
24. ई.एच.कार दो विश्व युद्ध के बीच
25. जैन एवं माथुर विश्व का इतिहास
26. अर्जुन देव, इंदिरा अर्जुन देव समकालीन विश्व का इतिहास (1890—2008)
27. बी.एन.लुणिया आधुनिक पाश्चात्य इतिहास की प्रमुख धाराएं (भाग-2)
28. कौलेश्वर राय आधुनिक यूरोप (1789—1945)

MATHEMATICS

There shall be three compulsory papers. Each paper of 50 marks is divided into five units and each unit carry equal marks.

B.A. Part-II

Paper-I

ADVANCED CALCULUS

- UNIT-I Definition of a sequence. Theorems on limits of sequences. Bounded and monotonic sequences. Cauchy's convergence criterion. Series of non-negative terms. Comparison tests, Cauchy's integral test, Ratio tests, Raabe's, Logarithmic, De Morgan and Bertrand's tests. Alternating series, Leibnitz's theorem. Absolute and conditional convergence.
- UNIT-II Continuity, Sequential continuity, Properties of continuous functions, Uniform continuity, Chain rule of differentiability, Mean value theorems and their geometrical interpretations. Darboux's intermediate value theorem for derivatives, Taylor's theorem with various forms of remainders.
- UNIT-III Limit and continuity of functions of two variables. Partial differentiation. Change of variables. Euler's theorem on homogeneous functions. Taylor's theorem for functions of two variables. Jacobians.
- UNIT-IV Envelopes, evolutes. Maxima, minima and saddle points of functions of two variables. Lagrange's multiplier method.
- UNIT-V Beta and Gamma functions, Double and triple integrals, Dirichlet's integrals, Change of order of integration in double integrals.

REFERENCES :

1. Gabriel Klaumber, Mathematical Analysis, Marcel Dekkar, Inc. New York, 1975.
2. T.M. Apostol, Mathematical Analysis, Narosa Publishing House, New Delhi, 1985.
3. R.R. Goldberg, Real Analysis, Oxford & I.B.H. Publishing Co., New Delhi, 1970.
4. D. Soma Sundaram and B. Choudhary, A First Course in Mathematical Analysis, Narosa Publishing House, New Delhi, 1997.
5. P.K. Jain and S.K. Kaushik, An introduction to Real Analysis, S. Chand & Co., New Delhi, 2000.
6. Gorakh Prasad, Differential Calculus, Pothishala Pvt. Ltd., Allahabad.
7. Murray R. Spiegel, Theory and Problems of Advanced Calculus, Schaum Publishing Co., New York.
8. Gorakh Prasad, Integral Calculus, Pothishala Pvt. Ltd., Allahabad.
9. S.C. Malik, Mathematical Analysis, Wiley Eastern Ltd., New Delhi.
10. O.E. Stanaitis, An Introduction to Sequences, Series and Improper Integrals, Holden-Dey, Inc., San Francisco, California.
11. Earl D. Rainville, Infinite Series, The Macmillan Company, New York.
12. Chandrika Prasad, Text Book on Algebra and Theory of Equations, Pothishala Pvt. Ltd., Allahabad.
13. N. Piskunov, Differential and Integral Calculus, Peace Publishers, Moscow.
14. Shanti Narayan, A Course of Mathematical Analysis, S.Chand and Company, New Delhi.

B.A. Part-II
Paper-II
DIFFERENTIAL EQUATIONS

- UNIT-I Series solutions of differential equations- Power series method, Bessel and Legendre functions and their properties-convergence, recurrence and generating relations, Orthogonality of functions, Sturm-Liouville problem, Orthogonality of eigen-functions, Reality of eigen values, Orthogonality of Bessel functions and Legendre polynomials.
- UNIT-II Laplace Transformation- Linearity of the Laplace transformation, Existence theorem for Laplace transforms, Laplace transforms of derivatives and integrals, Shifting theorems. Differentiation and integration of transforms. Convolution theorem. Solution of integral equations and systems of differential equations using the Laplace transformation.
- UNIT-III Partial differential equations of the first order. Lagrange's solution, Some special types of equations which can be solved easily by methods other than the general method, Charpit's general method of solution.
- UNIT-IV Partial differential equations of second and higher orders, Classification of linear partial differential equations of second order, Homogeneous and non-homogeneous equations with constant coefficients, Partial differential equations reducible to equations with constant coefficients, Monge's methods.
- UNIT-V Calculus of Variations- Variational problems with fixed boundaries- Euler's equation for functionals containing first order derivative and one independent variable, Extremals, Functionals dependent on higher order derivatives, Functionals dependent on more than one independent variable, Variational problems in parametric form, invariance of Euler's equation under coordinates transformation.
- Variational Problems with Moving Boundaries- Functionals dependent on one and two functions, One sided variations.
- Sufficient conditions for an Extremum- Jacobi and Legendre conditions, Second Variation. Variational principle of least action.

REFERENCES :

1. Erwin Kreyszig, Advanced Engineering Mathematics, John Wiley & Sons, Inc., New York, 1999.
2. D.A. Murray, Introductory Course on Differential Equations, Orient Longman, (India), 1967.
3. A.R. Forsyth, A Treatise on Differential Equations, Macmillan and Co. Ltd., London.
4. Lan N. Sneddon, Elements of Partial Differential Equations, McGraw-Hill Book Company, 1988.
5. Francis B. Hilderbrand, Advanced Calculus for Applications, Prentice Hall of India Pvt. Ltd., New Delhi, 1977.
6. Jane Cronin, Differential equations, Marcel Dekkar, 1994.
7. Frank Ayres, Theory and Problems of Differential Equations, McGraw-Hill Book Company, 1972.
8. Richard Bronson, Theory and Problems of Differential Equations, McGraw-Hill, Inc., 1973.
9. A.S. Gupta, Calculus of variations with-Applications, Prentice-Hall of India, 1997.
10. R. Courant and D. Hilbert, Methods of Mathematical Physics, Vols. I & II, Wiley-Interscience, 1953.
11. I.M. Gelfand and S.V. Fomin, Calculus of Variations, Prentice-Hill, Englewood Cliffs (New Jersey), 1963.
12. A.M. Arthurs, Complementary Variational Principles, Clarendon Press, Oxford, 1970.
13. V. Kornkov, Variational Principles of Continuum Mechanics with Engineering Applications, Vol. I, Reidel Publ. : Dordrecht, Holland, 1985.
14. T. Oden and J.N. Reddy, Variational Methods in Theoretical Mechanics, Springer-Verlag, 1976.

B.A. Part-II
Paper-III
MECHANICS

STATICS

UNIT-I Analytical conditions of Equilibrium, Stable and unstable equilibrium. Virtual work, Catenary.

UNIT-II Forces in three dimensions, Poinsot's central axis, Null lines and planes.

DYNAMICS

UNIT-III Simple harmonic motion. Elastic strings. Velocities and accelerations along radial and transverse directions, Projectile, Central orbits.

UNIT-IV Kepler's laws of motion, velocities and acceleration in tangential and normal directions, motion on smooth and rough plane curves.

UNIT-V Motion in a resisting medium, motion of particles of varying mass, motion of a particle in three dimensions, acceleration in terms of different co-ordinate systems.

REFERENCES :

1. S.L. Loney, Statics, Macmillan and Company, London.
2. R.S. Verma, A Text Book on Statics, Pothishala Pvt. Ltd., Allahabad.
3. S.L. Loney, An Elementary Treatise on the Dynamics of a particle and of rigid bodies, Cambridge University Press, 1956.

संशोधित
बी. ए. भाग-2
हिन्दी साहित्य
प्रथम प्रश्न पत्र

अर्वाचीन हिन्दी काव्य (पेपर कोड- 0173)

पूर्णांक- 75

प्रस्तावना- आधुनिक काव्य आधुनिकता की समस्त विशेषताओं को समेटे हुए है। स्वतंत्रता प्राप्ति के पूर्व की भाव- भाषा, शिल्प, अन्तर्वस्तु सम्बन्धी समस्त विकास धारा यहां सजीव रूप में देखी जा सकती है। इसे अनदेखा करना मनुष्य की विकास यात्रा को नजर अंदाज करना है। इस यात्रा के साक्षात्कार के लिए आधुनिक काव्य का अध्ययन अपेक्षित ही नहीं अपितु अनिवार्य हैं।

पाठ्य विषय-

1. मैथिलीशरण गुप्त – भारत- भारती की कविताएँ
2. सूर्यकान्त त्रिपाठी निराला – (1) सखि बसन्त आया।
(2) वर दे, वीणा वादिनी वर दे।
(3) हिन्दी के सुमनों के प्रति पत्र।
(4) तोड़ती- पत्थर।
(5) राजे ने अपनी रखवाली की।
3. सुमित्रानंदन पंत – (1) बादल।
(2) परिवर्तन 2 पद (1.खोलता इधर जन्मलोचन
2. आज का दुख कल का आल्हाद)
(3) ताज।
(4) झंझा में नीम।
(5) भारत माता।
4. माखन लाल चतुर्वेदी – (1) बलि पंथी से।
(2) साँझ और ढोलक की थापें।
(3) मैं बेच रही हूँ, दही।
(4) उलाहना।
(5) निः शस्त्र सेनानी।
5. स. ही. वात्स्यायन अज्ञेय – (1) सबेरे उठा तो धूप खिली थी।
(2) साम्राज्ञी का नैवेद्य दान।
(3) घर।
(4) चांदनी जी लो।
(5) दूर्वाचल।

द्रुतपाठ हेतु निम्न कवियों का अध्ययन किया जाएगा, जिन पर लघुउत्तरीय प्रश्न पूछे जायेंगे-

1. अयोध्या सिंह उपाध्याय "हरिऔध" ।
2. सुभद्रा कुमारी चौहान ।
3. श्रीकांत वर्मा ।

अंक विभाजन—	व्याख्याएं (3)	— 21 अंक
	आलोचनात्मक प्रश्न (2)	— 24 अंक
	लघुउत्तरीय प्रश्न (5)	— 15 अंक
	वस्तुनिष्ठ (15)	— 15 अंक
	कुल अंक	75 अंक

इकाई विभाजन—

- इकाई— 1 व्याख्या
- इकाई— 2 गुप्त, निराला
- इकाई— 3 पंत, चतुर्वेदी, अज्ञेय
- इकाई— 4 द्रुतपाठ के कवि एवं आधुनिक काव्य धारा का इतिहास
(राष्ट्रीय काव्य धारा, छायावाद, प्रगतिवाद, प्रयोगवाद, नई कविता)
- इकाई— 5 वस्तुनिष्ठ (सम्पूर्ण पाठ्यक्रम से)

संशोधित
बी. ए. भाग-2
हिन्दी साहित्य
द्वितीय प्रश्न पत्र

हिन्दी निबंध तथा अन्य गद्य विधाएँ(पेपर कोड- 0174)

पूर्णांक- 75

पाठ्य विषय-

व्याख्या एवं आलोचनात्मक प्रश्नों के लिए एक नाटक, पांच प्रतिनिधि निबंध और पाँच एकांकी का निर्धारण किया गया है।

नाटक- अंधेरी नगरी- भारतेन्दु हरिश्चन्द्र

निबंध-	1. क्रोध	- आचार्य रामचन्द्र शुक्ल।
	2. बसन्त	- डॉ. हजारी प्रसाद द्विवेदी।
	3. उस अमराई ने राम- राम कही है	- डॉ. विद्यानिवास मिश्र।
	4. काव्येषु नाट्यम रम्यम्	- बाबू गुलाब राय।
	5. बेईमानी की परत	- हरिशंकर परसाई
एकांकी-	1. औरंगजेब की आखिरी रात	- डॉ. रामकुमार वर्मा
	2. स्ट्राईक	- भुनेश्वर
	3. एक दिन	- लक्ष्मीनारायण मिश्र
	4. दस हजार	- उदयशंकर भट्ट
	5. मम्मी ठकुराईन	- डॉ. लक्ष्मीनारायण लाल

द्रुत पाठ के लिए तीन गद्यकारों का अध्ययन किया जायेगा, जिन पर लघुउत्तरीय प्रश्न पूछे जायेंगे।

1. राहुल सांकृत्यायन
2. महादेवी वर्मा
3. हबीब तनवीर

अंक विभाजन- व्याख्याएं (3)	- 21 अंक
आलोचनात्मक प्रश्न (2)	- 24 अंक
लघुउत्तरीय प्रश्न (5)	- 15 अंक
वस्तुनिष्ठ (15)	- 15 अंक
कुल अंक	75 अंक

इकाई विभाजन-

इकाई- 1 व्याख्या

इकाई- 2 अंधेरी नगरी एवं क्रोध, वसन्त, उस अमराई ने राम- राम कही हैं।

इकाई- 3 औरंगजेब की आखिरी रात, स्ट्राईक, एक दिन, दस हजार, मम्मी ठकुराईन

इकाई- 4 द्रुतपाठ के गद्यकार- राहुल सांकृत्यायन, महादेवी वर्मा, हबीब तनवीर।

इकाई- 5 वस्तुनिष्ठ (समग्र पाठ्य विषय से)

Revised syllabus
SOCIOLOGY 2018-2019

B.A. PART-II
PAPER – I
SOCIOLOGY OF TRIBAL SOCIETY
(Paper Code-0185)

- UNIT-I **Tribes:** Concepts, Characteristics, Tribes and Schedule Tribes, Distinction between Tribe and Caste.
- UNIT-II **Classification of Tribal people:** Food gatherers and hunters, Shifting cultivates, Nomads, Peasant settled Agriculturists and Artisans.
- UNIT-III **Socio-cultural Profile:** Kinship, Marriage, Family, Religion and belief cultural traditions.
- UNIT-IV **Tribal sensitization:** Tribal Mobility, Schemes of Tribal Development ,Various Tribal Movements.
- UNIT-V **Problems of Tribal People:** Poverty, Illiteracy, Indebtedness, Agrarian issues, Exploitation study of tribal communities in Chhattisgarh with special reform to Particularly Venerable Tribal Groups (PVTG).

ESSENTIAL READINGS :-

- 1 Vidyarthi, L.P. 1965. Cultural Counters of Tribal Bihar, Punthi Pustak, Calcutta.
- 2 Bose, N.K. 1971. Tribal Life in India, National Book Trust, New Delhi.
- 3 Das, R.K. 1988. The Tribal Social Structure, Inter India Publications, New Delhi.
- 4 Dubey, S.C.. 1977. Tribal Heritage of India, Ethnicity, Identity and Interaction, Vol.1, Vikash Publishing House, Delhi.
- 5 Elwin, Varrier. 1989. The Tribal World of Verrier Elwin: An Autobiography, Oxford, New Delhi.
- 6 Russell, R.V. and Hira Lal. 1916. The Tribes and Castes of Central Province of India, 4 Vols. Cosmo Publications, New Delhi.

Amey Singh
11/06/18

SHYAM
11.06.18

Shalika
11/06/2018

[Signature]

Aan
11-6-18

[Signature]
11-06-2018

[Signature]
11/6/18

[Signature]
11/6/2018
Head,

S.O.S. in Sociology & Social Work,
Pt. Ravishankar Shukla University,
Raipur. (C.G.),

Revised syllabus
SOCIOLOGY 2018-2019

B.A. PART-II.

PAPER-II

CRIME AND SOCIETY

(Paper Code-0186)

- UNIT-I **Concept of Crime:** Meaning, Characteristics and Types.
School of Crime: Classical, Sociological and Psychological.
- UNIT-II **Structure of Crime:** Anomie, Criminality and Suicide , Organized Crime ,
White Collar Crime and Cyber Crime
- UNIT-III **Social Evils and Crime:** Alcoholism, Drug Addiction, Dowry and Beggary.
- UNIT-IV **Punishment:** Meaning, Characteristics, Objectives and Types,
Major Theories of Punishment.
- UNIT-V **Correctional Process:** Role of Police and Judiciary in India, Development of Jail
reforms in India and Modern correctional concepts- Probation , Parole and after
care Programme.

ESSENTIAL READINGS :-

1. Mike, & Maguire. (2007). *The Oxford Hand Book of Criminology*. London: Oxford University Press.
2. Haster, S., & Eglin, P. (1992). *A Sociology of Crime*. London: Routledge Publishers.
3. Mead, G. H. (1934). *Mind Self and Society*. Chicago: Chicago University Press
4. Gottfredson, Michael, R., Hirschi, & Travis. (1990). *A General Theory of Crime*. London: Stanford University Press.
5. Sutherland, & Edwin, H. (1924). *Principles of Criminology*. Chicago: Chicago University Press.
6. Sutherland, Edward, H., & White. C. (1949). *Crime*. New York, Holt, Rinehart: Winston Press, New York.

SHUKLA
11-06-18

Pragya Bajaj
Shobhachand
11/06/2018

11-06-18

11-06-18

11-06-18

11/6/2018
Head,
S.O.S. in Sociology & Social Work,
Pt. Ravishankar Shukla University,
Raipur, (C.G.).

REVISED SYLLBUS

B.A. Part- II (Economics)

Subject : Macro Economics, Paper-I (Code: 0181)

UNIT 1

National Income: Concept and measurement of national income, Economic welfare and national income, Social accounting. Circular flow of income, National income accounting, Green accounting Classical theory of employment, Say's law of market Keynesian theory of employment.

UNIT 2

Consumption Function - Average and marginal propensity to consume, Keynes's psychological law of consumption. Determinants of the consumption function. The saving function. The investments multiplier and its effectiveness, The investment Function - marginal efficiency of capital, Autonomous and induced investment. Saving and investment equality.

UNIT 3

Nature and Characteristics of trade cycle, Theories of trade cycle: Hawtrey's monetary theory, Hayek's over investment theory, Keynes's view on trade cycles, Schumpeter's theory of innovation, Samuelson and Hicks multiplier accelerator model, Control of trade cycle.

UNIT 4

International Trade - Inter-regional and international trade, Comparative advantage cost theory, Opportunity cost theory and Heckscher Ohlin theory, International trade and economic development, Tariffs & import quotas, Concept of optimum tariff. Balance of trade & balance of payment., Concept & components of BOP, Equilibrium & disequilibrium in BOP, Relative merits & demerits of devaluation, Foreign trade multiplier.

UNIT 5

Functions and objectives of international monetary fund, World Bank and World Trade Organization, International monetary reforms and India, Foreign trade in India recent change in the composition and direction of foreign trade, India's balance of payment, Export promotion and import substitution in India. Multinational Corporation and India.

BASIC READING LIST -

- Ackley, G. (1976) – “ Macro Economics; Theory and Policy,” Mcmillan Publishing Company, Newyork.
- Day, A.C.L. (1960) – “Outline of Monetary Economics,” Oxford University Press Oxford.
- Gupta, S.B. (1994)- “Monetary Economics,” S. Chand and Co., Delhi
- Heijdra, B.J. and F.V. Ploeg (2001) – “Foundations of Modern Macro-economics,” Oxford University Press, Oxford.
- Lewis, M.K. and P.D. Mizan (2000) –“ Monetary Economics, “ Oxford University Press, New Delhi.
- Shapiro, E. (1996) – “Macroeconomic Analysis,” Galgotia Publications, New Delhi .

READING LIST - - Ackley, G. (1976),” Macroeconomics : Theory and Policy”, Macmillan Publishing Company, New York. -

- Day, A.C.L. (1960) –“ Outline of Monetary Economics,” Oxford University Press Oxford.
- Gupta, S.B. (1994)- “Monetary Economics,” S. Chand and Co., Delhi
- Heijdra, B.J. and F.V. Ploeg (2001) –“ Foundations of Modern Macro-economics, “ Oxford University Press, Oxford.
- Lewis, M.K. and P.D. Mizan (2000) - Monetary Economics, Oxford University Press, New Delhi.
- Shapiro, E. (1996) – “Macroeconomic Analysis,” Galgotia Publications, New Delhi.
- Dillard, D. (1960)- “The Economics of John Mayanand Keynes, “Crossby Lockwood and Sons, London.
- Hanson, A.H. (1953), “A Guide to Keynes, “ McGraw Hill, New York.
- Higgins, B. (1963), “Economic Development; Principles, Problems and Policies, “ Central Book Depot, Allahbad.
- Keynes, J.M. (1936), “The General Theory of Employment, Interest and Money,” Macmillan, London.
- Kindleberger, C.P. (1958), “Economic Development,” McGraw Hill Book company, New York.
- Powelson, J.P.C. (1960), “ National Income and Flow of Funds Analysis,” McGraw Hill, New York.

==*==

REVISED SYLLBUS

B.A. Part- II (Economics)

Subject : Money, Banking and Public Finance, Paper-II (Code: 0182)

UNIT 1

Basic concepts : Money - meaning and functions, Gresham's law; Quantity theory of money- Cash transaction and cash balance approaches; Value of Money, Inflation, deflation and reflation, types, causes and effects on different sectors of the economy; Demand pull and cost push inflation; Measures to control inflation. Phillips curve, Concept of demonetization.

UNIT 2

Commercial banking- meaning and types; Functions of commercial banks, The process of credit creation, purpose and limitations; Liabilities and assets of banks; Evolution of commercial banking in India after independence; A critical appraisal of the progress of commercial banking after Nationalization, Functions of a central bank; Quantitative and qualitative methods of credit control; Bank rate policy; Open market operations; Variable reserve ratio and selective methods. Role and functions of the Reserve bank of India; Objectives and limitations of monetary policy with special reference to India.

UNIT 3

Meaning and scope of public finance; Distinction between private and public finance; public goods v/s private goods; The Principle of maximum social advantage; Role of the government in economic activities ; Public expenditure - Meaning, classification and principles of public expenditure; Trends in public expenditure and causes of growth of public expenditure in India.

UNIT 4

Sources of Public revenue; taxation - Meaning, Canons and classification of taxes; Division of tax burden. The benefit and ability to pay approaches; Impact and incidence of taxes; Taxable capacity; Effects of taxation; Characteristics of a good tax system; Equity and Justice in Taxation, Major trends in tax revenue of the Central and State Government in India.

UNIT 5

Public debt and financial administration: Sources of public borrowing, Effects of public debt. Methods of debt redemption. The public budget- Kinds of budget, Economic and functional classification of the budget; Preparation and passing of budget in India.

READING LIST -

- Ackley G. (1978), "Macroeconomics : Theory and Policy," Macmillan Publishing Co., New York.
- Bhargavas B.H. (1981), "The Theory and Working of Union Finance in India," Chaitanya Publishing House Allaybad.
- Gupta, S.B. (1994)," Monetary Economics", S. Chand & Company, New Delhi.
- Houghton. E.W. (Ed.) (1988), "Public Finance." Pengum, Battinore - Jha R. (1998), Modorn Public Economics. Routledge, London.
- Mithani, D.M. (1981), "Modern Public Finance," Himalaya Publishing House, Mumbai.
- Musgrave, R.A. and P.B. Musgrave (1976)," Public Finance in Theory and Practice", McGraw Hill, Kogakusha, Tokyo.
- Shapiro, E. (1996), "Macroeconomics Analysis," Galgotia Publications, New Delhi.

ADDITIONAL READING LIST

- Day, A.C.L. (1960), "Outline of Monetary Economics, " Oxford University Press, Oxford.
- De Kock, M.H. (1960)," Central Banking." Staples Press, London.
- Due, J.E. (1963), "Government Finance," Irwin, Homewood.
- Government of India, "Economic Survey" (Annual), New Delhi
- Halm, G.N. (1955), "Monetary Theory," Asia Publishing House, New Delhi

PAPER - I
ECONOMIC AND RESOURCES GEOGRAPHY

Max. Marks: 50

(Paper Code-0187)

- Unit I** Meaning, scope and approaches to economic geography; Main concepts of economic geography; Resource: concept and classification; Natural resources: soil, forest and water.
- Unit II** Mineral resources: iron ore and bauxite; Power resources: coal, petroleum and hydro electricity; Resource conservation; Principal crops: wheat, rice, sugarcane and tea
- Unit III** Agricultural regions of the world (Derwent Whittlesey); Theory of agricultural location (Von Thunen); Theory of industrial location (Weber); Major industries: iron and steel, textiles, petrochemical and sugar; industrial regions of the world.
- Unit IV** World transportation: major trans-continental railways, sea and air routes; International trade: patterns and trends; Major trade blocks: LAFTA, EEC, ASEAN; Effect of globalization on developing countries.
- Unit V** Conservation of resources; evolution of the concept, principles, philosophy, and approach to conservation, resources conservation and practices. Policy making and sustainable development.

Books Recommended:

1. Alexander, J. W. (1988): Economic Geography. Prentice-Hall, New Delhi,.
2. Bryson, J., Henry, N., Keeble, D. and Martin, R. (eds.) (1999): The Economic Geography Reader: Producing and Consuming Global Capitalism. John Wiley and Sons, Inc, New York.
3. Clark, G. L., Gertler, M. S. and Feldman, M. P. (eds.) (2000): The Oxford Handbook of Economic Geography. Oxford University Press, USA.
4. Coe, N. (2007): Economic Geography: A Contemporary Introduction. Blackwell Publishers, Inc., Massachusetts.
5. Gautam, A. (2006): *Aarthik Bhugol Ke Mool Tattava*, Sharda Pustak Bhawan, Allahabad.
6. Guha, J. S. and Chattoraj, P.R. (2002): A New Approach to Economic Geography: A Study of Resources. The World Press Private Limited, Kolkata.
7. Hanink, D. M. (1997): Principles and Applications of Economic Geography: Economy, Policy, Environment. John Wiley and Sons, Inc, New York.
8. Hartshorne, T. A. and Alexander, J. W. (1988): Economic Geography (3rd revised edition) Englewood Cliff, New Jersey, Prentice Hall
9. Hudson, R. (2005): Economic Geographies: Circuits, Flows and Spaces. Sage Publications, London.
10. Knowles, R, Wareing, J. (2000): Economic and Social Geography Made Simple, Rupa and Company, New Delhi.

PAPER - II

GEOGRAPHY OF INDIA

Max. Marks: 50
(Paper Code-0188)

- Unit I** Physical Features: Structure, Relief, Climate, Physiographic Regions, Drainage, Climate-origin and mechanism of monsoon, and regional and Seasonal variation.
- Unit II** Natural Resources: Soils - types, their distribution and characteristics. Water Resources (major irrigation and hydel power projects); Forests-types, distribution, economic significance and conservation. Mineral and Power resources-Iron-ore, Manganese, Copper, Coal, Petroleum and Natural gas, Non conventional sources of energy.
- Unit III** Cultural Features : Population - Growth, Density and Distribution. Agriculture - Major crops, impact of Green Revolution and Agricultural regions.
- Unit IV** Industries Localization, Development & Production - Iron and steel, Cotton Textile, Cement, Sugar, Transport, Foreign Trade. Industrial Region.
- Unit V** Detailed Study of the following regions of India : Kashmir Valley, North- East Region, Chhota Nagpur Plateau, Thar Desert, Islands of India.

Books Recommended:

1. Chauhan, P.R. and Prasad, M. (2003): *Bharat Ka Vrihad Bhugol*, Vasundhara Prakashan, Gorakhpur.
2. Farmer, B.H. (1983): *An Introduction to South Asia*. Methuen, London
3. Gautam, A. (2006): *Advanced Geography of India*, Sharda Pustak Bhawan, Allahabad
4. Johnson, B.L.C. (1963): *Development in South Asia*. Penguin Books, Harmondsworth
5. Krishnan, M.S. (1982): *Geology of India and Burma*, CAS Publishers and Distributors, Delhi.
6. Khullar, D.R. (2007): *India: A Comprehensive Geography*, Kalyani Publishers, New Delhi
7. Nag, P. and Gupta, S. S. (1992): *Geography of India*, Concept Publishing Company, New Delhi.
8. Rao, B.P. (2007): *Bharat ke Bhaugolik Sameeksha*, Vasundhara Prakashan, Gorakhpur.
9. Sharma, T.C. and Coutinho, O. (2003): *Economic and Commercial Geography of India*, Vikas Publishing House Private Ltd. New Delhi.
10. Singh, J. (2003): *India: A Comprehensive Systematic Geography*. Gyanodaya Prakashan, Gorakhpur
11. Singh, J. (2001): *Bharat: Bhaugolik Aadhar Avam Ayam*, Gyanodaya Prakashan, Gorakhpur.
12. Singh, R.L. (ed.) (1971): *India: A Regional Geography*. National Geographical Society of India, Varanasi.
13. Spate, O.H. K., Learmonth A. T. A. and Farmer, B. H. (1996): *India, Pakistan and Sri Lanka*. Methuen, London, 7th edition.
14. Sukhwai, B.L. (1987): *India: Economic Resource Base and Contemporary Political Patterns*. Sterling Publication, New Delhi
15. Tiwari, R.C. (2007): *Geography of India*, Prayag Pustak Bhawan, Allahabad.
16. Wadia, D. N. (1959): *Geology of India*. Mac-Millan and Company, London and student edition, Madras.

B.A. /B.Sc. Part II

PAPER - III
PRACTICAL GEOGRAPHY
Max. Marks: 50

SECTION A

MAP INTERPRETATION, PROJECTIONS AND STATISTICAL METHODS (M.M. 25)

- Unit I** Distribution Maps: Dot Map, Choropleth Map and Isopleth Map.
- Unit II** Map Projections: Definition and classification; Conical, Zenithal, and Cylindrical Projections.
- Unit III** Interpretation of Weather Maps: Use of Meteorological Instruments.
- Unit IV** Statistical Methods: Quartile: Mean Deviation, Standard Deviation and Quartile Deviation; Relative Variability and Co-efficient of Variation.

SECTION B

SURVEYING (M.M. 15)

- Unit V** Surveying: Whole Circle Bearing and Reduced Bearing, Methods of Prismatic Compass Survey.

PRACTICAL RECORD AND VIVA VOCE (M.M. 10)

Books Recommended:

1. Alvi, Z. 1995 : Statistical Geography: Methods and Applications, Rawat Pub. New Delhi: .
2. Davis, R.E. and Foote, F.S. (1953): Surveying, 4th edition, McGraw Hill Publication, New York
3. Kanetker, T.P. and Kulkarni, S.V.(1967): Surveying and Levelling, Vol I and II V.G. Prakashan, Poona.
4. Natrajan, V. (1976): Advanced Surveying, B.I. Publications., Mumbai.
5. Pal, S.K. 1999 : Statistics for Geoscientists, Concept publishing Company, New Delhi
6. Punmia, B.C.(1994): Surveying, Vol I, Laxmi Publications Private Ltd, New Delhi.
7. Raisz, E. (1962): General Cartography. John Wiley and Sons, New York. 5th edition
8. Sarkar, A. K. (1997): Practical Geography: A Systematic Approach. Orient Longman, Kolkata.
9. Sharma, J. P. (2001): *Prayogik Bhugol.*, Rastogi Publication, Meerut 3rd. edition.
10. Silk, J. 1979 : Statistical techniques in Geography, George Allen and Unwin, London
11. Singh, R.L. and Singh, Rana P.B. (1993): Elements of Practical Geography. (Hindi and English editions). Kalyani Publishers, New Delhi,.
12. Singh, L.R. (2006): Fundamentals of Practical Geography, Sharda Pustak Bhawan, Allahabad.
13. Venkatramaiah, C. (1997): A Text Book of Surveying, Universities Press, Hyderabad.

B.A. – II

PSYCHOLOGY

Paper	Name of the Paper	Max. Marks	Duration
I	Social Psychology	50	3 hrs.
II.	Psychological Assessment	50	3 hrs.
III.	Practicum	50	4 Hrs.

PAPER - I

SOCIAL PSYCHOLOGY (Paper Code-0189)

M.M.:50

Note: This paper consists of five units. From each unit a minimum of two questions would be set and the candidates would be required to attempt one from the each unit.

UNIT-1 Nature, Goal and Scope of Social Psychology; Methods of Social Psychology: Experimental, Survey, Interview, Observation, and Sociometric. Approaches to the study of social behavior: Psychoanalytic, Cognitive, and Behavioral.

UNIT-2 Social Perception: Perception of Self and Others, Impression Formation and its Determinant, Prosocial Behavior: Co-operation and Helping- Personal, Situational and Socio-cultural Determinants.

UNIT-3 Stereotypes: Nature and Determinants; Prejudice: Nature and Determinants; Attitudes: Nature and Measurement; Interpersonal Attraction and Determinants.

UNIT-4 Group Structure and Function: Social Facilitation, Conformity, Cohesiveness; Group Norms; Leadership: Nature, Types, Characteristics and Functions.

UNIT-5 Social Issues: Aggression- Determinants, Prevention and Control; Population Explosion- Nature and Consequences (Socio-cultural); Pollution; Corruption; Mob Behavior; Gender Discrimination and Child Labour.

References

- 1- fllg] v : tk dekjA lekt eukfoKku dh : ij[kkA ekrtkyk cukjllhkn idk'kuA
- 2- feJk ,o tuA leku eukfoKku d ey vk/kkjA e-i- fgUnh xFk vdknehA
- 3- f=iKBh] ykycpuA lekt eukfoKku dh : ij[kkA gjllkn Hkkxo idk'kuA
- 4- Baron, R.A. & Byrne, D. Social Psychology. New Delhi: Prentice Hall Pub.
- 5- Secord, P.F. & Backman, C.W. (1994). Social Psychology. McGraw-Hill.



B.A. - II

PSYCHOLOGY

PAPER- II

PSYCHOLOGICAL ASSESSMENT (Paper Code-0190)

M.M.:50

Note: This paper consists of five units. From each unit a minimum of two questions would be set and the candidates would be required to attempt one from the each unit.

UNIT-1 Psychological Assessment: Concept, Difference between Physical and Psychological Assessment, Levels of Assessment, Barriers in Psychological Assessment, Unidimensional and Multidimensional Assessment.

UNIT-2 Psychological Tests: Concept, Characteristics, and Types- Standardized and Non-standardised, Group, Performance and Verbal; Uses of Psychological Tests.

UNIT-3 Test Construction: Steps in Test Construction, Reliability- Test-retest, Split-half; Factors affecting Reliability; Validity: Content and Predictive; Factors affecting Validity; Norms- Age and Grade.

UNIT-4 Cognitive and Non-cognitive Tests: Cognitive- Introduction to Intelligence, Aptitude, and Achievement Testing; Non-Cognitive: Introduction to Personality, Interest, and Value Testing.

UNIT-5 Psychological Testing in Applied aspects of Life: Education, Occupation, Social, Health and Organization; Socio-Cultural factors in Psychological Assessment.

References

- 1- Anastasi (1997) Psychological Testing, New York : McGraw-Hill.
- 2- Ciminero, A.R. (1986) Handbook of Behavioral Assessment, New York: John Wiley.
- 3- Gupta, S.P. (2001). Manovaigyanik Mapan evam Moolyankan. Agra: Sharda Prakashan.



B. A. - II
PSYCHOLOGY
PAPER- III
PRACTICUM

M.M.:50

Note: This paper consists of two parts:

Part-A

- (a) Comprises of Laboratory **Experiments**.
- (b) Comprises of Psychological **Testing** and understanding of self and others.

(a) **Experiments** (Any five of the following):-

1. Effect of Group on Decision Making.
2. Social Facilitation.
3. Effect of Social setting on Sociometry.
4. Stereotypes.
5. Effect of Order of Information on Person-Perception.
6. Effect of Leadership on Performance.
7. Effect of Cognitive Dissonance on Attitude Change.
8. Effect of Communicator's Credibility on Suggestibility.

(b) **Psychological Tests** (Any four of the following):-

1. Aggression.
2. Deprivation.
3. Self-concept.
4. Dependence Proneness Scale.
5. Value.
6. Vocational Interest.
7. Attitude Scale.
8. Creativity.
9. Personality Test.

Part-B

Field Work

Each student will be required to visit a hospital/ industrial organisation/ educational institution etc. under departmental supervision and shall be preparing his/her observation report, revealing his/her psychological insight about group dynamics that is operational in the unit. This record constitutes a part of assessment of field visit. Measures of central tendency in group data and correlation- Rank order.

Distribution of Marks

A. Conduction of Psychological Experiment and Reporting	15 marks.
B. Administration of one Psychological Test and Reporting	15 marks.
C. Evaluation of Practical note book of the Field-Work	10 marks.
D. Viva-Voce	10 marks.

References Sharma, R. (2018)- Psycho-laboratory- Experiment and Test. Raipur: Vaibhav Prakshan.



B. A. - II
PSYCHOLOGY
PAPER- III

पाठ्यक्रम उर्दू अदब

बी.ए. भाग-2

नोट - इस इम्तेहान में दो पर्चे होंगे । हर पर्चा 75 का होगा ।

- (1) नस
- (2) शायरी

पहला पर्चा नस

(पेपर कोड-0199)

(खत निगारी, तन्जोमिजाह, तन्कीद)

निसाब :

खत निगारी :

- | | |
|--------------------------|---------------------------------------|
| 1. खुतूते गालिब | ऊर्दूए मोअल्ला और ऊदे हिंदी से तीन खत |
| 2. खुतूते मेंहदी इफादी | सहीकए मुहब्बत से तीन खते |
| 3. मुतूते अबुल कलाम आजाद | गुबारे खातिर से तीन खते |

तन्जो पिजाह :

- | | |
|--------------------------|-----------------------------------|
| 1. खोजी का किरदार | फसानए आजाद से अज पं. रतननाथ सरशार |
| 2. औरत जात से | अज मुल्ला रमूजी |
| 3. गफूर मियाँ से इफतेताब | तखल्लुस भोपाल |
| 4. हिमाकते | शफीरकुरेहयान |

तन्कीद :

- | | |
|--------------------------------------|---|
| 1. मजमून अज शिब्लि मजस्माने शिब्लि | |
| 2. गालिब शख्सो शायर से | मंजनू गौरखपुरी |
| 3. इकबाल की अज़मत | आले अहमद सुरूर |
| 4. चकबस्त बहैहियत पयाम्बरे दौरै जदीद | अहतेशाम हुसैन |
| 5. कसीदे सिन्फे सूखुन की हैसियत से | ऊर्दू में कसीदा निगारी से डॉ. अबु मुहम्मद सहर |

इकाईयाँ :

- | | | |
|-------------|--|--------|
| पहली इकाई | : शामिले निसाब असनाफ पर सवालात | नं. 15 |
| दूसरी इकाई | : खत निमारों पर तनकीदी सवालात | नं. 15 |
| तीसरी इकाई | : तन्जो मिजाह निगारों पर सवालात | नं. 15 |
| चौथी इकाई | : तन्कीद निगारों पर सवालात | नं. 15 |
| पाँचवी इकाई | : शामिले निसाब खुतूत और तन्कीदी गमामी के इक्बेबासात की तशरीह | नं. 15 |

निसाब उर्दू अदब
पर्चा-2 (शामरी)
(पेपर कोड-0200)
(मसनवियात ब-मन्जूमात)

नं. : 75

निसाब :

मसनवियात :

1. मसनबी सहरूल बयात से इन्तेखाब अज मोर हसन (ब एतेबार प्लाट)
2. मसनवी गुलजारे रसीम इन्तेखाब अज दयाशंकरनसीम

मन्जूमात :

- | | |
|----------------------|----------------------|
| 1. आदबी नामा | अज नजीर अकबर आबादी |
| 2. बरसात की बहारे | अज नजीर अकबर आबादी |
| 3. चुण की दाद | अज अल्ताफ हुसैन हाली |
| 4. हुब्बे वतन | अज अल्ताफ हुसैन हाली |
| 5. रामायण का एक सीन | अज बृजमोहन चकबस्त |
| 6. जिब्रील और इब्लीस | डॉ. इकबाल |
| 7. शुभाए उम्मीद | डॉ. इकबाल |
| 8. अल्बेली सुबह | जोश मलीहाबादी |
| 9. तन्हाई | फैज अहमद फैज |
| 10. एक लड़का | अख्तर उल ईमान |
| 11. आवाग | मजाज लखनवी |
| 12. चाँद तारो का बन | मखदूम मुहीउद्दीन |
| 13. सुबहे परदा | सरदार जाफरी |

इकाईयाँ :

- | | |
|--|--------|
| इकाई नं. 1. शामिले निसाब असनाफ पर सवालात | नं. 15 |
| 2. मसनबी निगारो पर सवालात | नं. 15 |
| 3. नज्म निगारों पर सवालात और मन्जूमात का खुलासा या जायजा | नं. 15 |
| 4. तशरीह मसनवियात से | नं. 15 |
| 5. तशरीह मन्जूमात | नं. 15 |

गृह विज्ञान

प्रश्न पत्र - 1

तंतु एवं वस्त्र विज्ञान

पूर्णांक : 50

(पेपर कोड-0191)

इस परीक्षा में दो लिखित प्रश्न पत्र होंगे । जिसमें से प्रत्येक तीन घंटे की अवधि तथा 50 अंकों का होगा । एक प्रायोगिक परीक्षा 50 अंकों की होगी । जिसमें से 10 अंक सत्रीय कार्य के लिये सुरक्षित रहेंगे । कुल अंक 150 होंगे । परीक्षार्थियों को लिखित एवं प्रायोगिक परीक्षा में पृथक-पृथक उत्तीर्ण होना अनिवार्य है-

इकाई-1 तंतु विज्ञान का परिचय- तंतुओं का वर्गीकरण, विशेषतायें, भौतिक एवं रासायनिक परीक्षण ।

वस्त्र बुनाई (Weaves) : के प्रकार- सादी टिवल सेटिन जैकार्ड, पाइल ।

इकाई-2 आधारभूत परिसज्जाएँ, विशेष परिसज्जाएँ । रंगों का वर्गीकरण एवं विभिन्न तंतुओं के लिये उनकी उपयुक्तता ।

इकाई-3 छपाई-प्रकार, ब्लाक, स्टेन्सिल, स्क्रीन, डिसचर्ज रोलेर । प्रत्येक प्रकार की छपाई की विधियां । टाई एंड डाई-विशेषता, विधि ।

इकाई-4 धुलाई : जल, साबुन, शुष्क धुलाई, कलफ तथा नील । धब्बे छुड़ाना, विभिन्न प्रकार के वस्त्र धोना ।

इकाई-5 परिधान : परिधान एवं व्यक्तित्व, परिधान का चुनाव, ड्राफ्टिंग की विधि, सीवन (प्रकार) परिधान में पूर्णता (डार्ट, प्लीट्स, टक्स, गेदर्स) प्लैक्ट ओपनिंग, फासनेर ।

स्वीकृत पुस्तकें :

- | | | |
|-----------------------------------|---|-------------------------|
| 1. वस्त्र विज्ञान एवं परिधान | : | डॉ. प्रमिला |
| 2. वस्त्र विज्ञान के मूल सिद्धांत | : | डॉ. जी.पी. शैरी |
| 3. हाउसहोल्ड फिजिक्स | : | डॉ. कुलश्रेष्ठ |
| 4. गृह व्यवस्था एवं गृह सज्जा | : | श्रीमती के. बक्शी |
| 5. गृह व्यवस्था एवं गृह सज्जा | : | चन्द्रकांता मांडलिक |
| 6. गृह व्यवस्था एवं गृह कला | : | जी.पी. शैरी |
| 7. गृह व्यवस्था एवं गृह कला | : | श्रीमती कांति पांडेय |
| 8. पारिवारिक परिधान एवं व्यवस्था | : | मंजु पाटनी व सपना हेनरी |
| 9. गृह व्यवस्था | : | डॉ. करुणा शर्मा |

गृह विज्ञान

प्रश्न पत्र - 2

पारिवारिक संसाधन प्रबंधन

पूर्णांक : 50

(पेपर कोड-0192)

इकाई-1 गृह प्रबंध : गृह प्रबंध की परिभाषा, गृह प्रबंध प्रक्रिया, परिवार में गृहणी के कर्तव्य एवं उत्तरदायित्व- मूल्य, लक्ष्य स्तर-अर्थ विशेषता वर्गीकरण एवं विकास, निर्णय प्रक्रिया ।

इकाई-2 गृह सज्जा : कला के सिद्धांत एवं कला के तत्व । नमूना-रचनात्मक एवं अलंकारमय नमूना, नमूने के सिद्धांत । रंग-रंग के महत्व एवं प्रभाव, फर्नीचर का चुनाव एवं महत्व, गृह सज्जा के उपसाधन । पुष्प सज्जा, प्रकार,

सिद्धांत, उपयोग।

इकाई-3 पारिवारिक साधन : पारिवारिक साधन, वर्गीकरण, विशेषतायें, उपयोग को प्रभावित करने वाले तत्व, समय-अवधारणा, समय, व्यवस्थापन के साधन। समय व्यवस्थापक की प्रक्रिया।

शक्ति-अवधारणा, विभिन्न घरेलू कार्यों में शक्ति का मूल्य, शक्ति व्यवस्थापन की प्रक्रिया।

आय के साधन एवं प्रकार, पारिवारिक बजट, व्यय बचत, रहन सहन का स्तर, आय व्यय का लेखा जोखा (एकाउंट कीपिंग)।

इकाई-4 रसोई घर : आधुनिक रसोई घर, प्रकार, रसोई-घर के कार्यक्षेत्र, ईंधन के गैर परम्परागत स्रोत, सौर ऊर्जा, जल वितरण प्रणाली, वायुबीजन, प्रकाश की व्यवस्था, संग्रह व्यवस्था।

इकाई-5 कार्य का सरलीकरण : अर्थ, कार्य विधियाँ एवं आदतों में सुधार की तकनीक, प्रोसेस चार्ट, पाथवे चार्ट, परिवर्तन की श्रेणियाँ। समय शक्ति एवं श्रम बचत के उपकरण।

प्रायोगिक कार्य

1. सिलाई- ब्लाऊज, बेबी फ्राक, झबला, बाबा सूट, पंजाबी कुरता, सलवार, पेटीकोट, पुष्प सज्जा।
2. धुलाई- विभिन्न वस्त्रों की धुलाई, धब्बे छुड़ाना, बांधनी का कार्य।
3. पुष्प सज्जा।

अंक विवरण -	सत्रीय	:	10
	सिलाई	:	20
	धुलाई	:	15 (धुलाई कार्य, बांधनी-10, धब्बा छुड़ाना 5)
	पुष्प सज्जा	:	5

स्वीकृत पुस्तकें :

1. वस्त्र विज्ञान एवं परिधान : डॉ. प्रमिला
2. वस्त्र विज्ञान के मूल सिद्धांत : डॉ. जी.पी. शेरी
3. हाउसहोल्ड फिजिक्स : डॉ. कुलश्रेष्ठ
4. प्रारंभिक कृषि विज्ञान : राजेन्द्र प्रसाद
5. उद्यान विज्ञान : डॉ. एस.एस. श्रीवास्तव
6. गृह व्यवस्था एवं गृह सज्जा : श्रीमती के. बक्सी
7. गृह व्यवस्था एवं गृह सज्जा : चन्द्रकांता मांडलिक
8. गृह व्यवस्था एवं गृह कला : जी.पी. शेरी
9. गृह व्यवस्था एवं गृह कला : श्रीमती कांति पांडेय
10. कृषि विज्ञान : कृपाल सिंह भिंडर
11. उद्यान शास्त्र : बसंत इंगोले
12. पारिवारिक परिधान एवं व्यवस्था : मंजु पाटनी व सपना हेनरी

MUSIC
PAPER - I
THEORY OF INDIAN MUSIC. VOCAL \ INSTRUMENTAL
(Paper Code-0201)

- UNIT-I** (a) Definitions and study of the following terms : Graha, Ansha, Nayas Swara, Paryayansha Swara, Alpatava-Bahutva, Aavirbhava-Tirobhava, Gandharva-Gan, Nibaddha-Anibaddha Gan, Jamjama, Ghaseet, Krintan, Shuddha, Chayalag, Sankirna Raga.
- (b) Swasthan Niyam, Ragalap, Aalapti, Akshiptika, Samvadatva.
- UNIT-II** Short Biographics and contributions of the Musicians :- Sharangdeva, Acharya Bharat, Aahobal, Venkatmakhi, Sadarang-Adarang. Aalauddin Khan, Faiyaz Khan, Imdad Khan, Pt. Ravi Shankar.
- UNIT-III** Notation of Talas with Dugun and Chaugun Layakaries :-
Roopak, Teevra, Sultal, Deepchandi, Jhumra, Adachautal, Dhamar, Tilwara.
- UNIT-IV** (a) Study of Karnatak Taal System,
(b) Comparative study of Karnatak and Hindustani Taal System.
- UNIT-V** Definition of Vaggeyakar, Uttam Vageyakar, Adham Vaggeyakar, Classification of Instruments :- Tat, Vitat, Ghan, Shushir

PAPER - II
THEORY OF INDIAN MUSIC VOCAL.INSTRUMENTAL M.M. : 50
(Paper Code-0202)

- UNIT-I** Elementry of Medium-Sound, Musical Sound and Noice, Vibratory motions, Frequency, Pitch, Magnitude and Timber, Major Tone, Minor Tone, Semi Tone.
- UNIT-II** Study of Melas or Thatas as follows :
- (a) 72 Melas of Venkat Mukhi
(b) 32 Thatas of V.N. Bhatkhande
- UNIT-III** History of Indian Music as follows :
- (a) Origin of Music
(b) Vedic, Pauranik and Gupta Period a short survey
- UNIT-IV** (a) Explanation of the following terms :
Kajari, Chaiti, Rabindra Sangeet, Tribal Music, Lawani, Garba, Baul, Bhatiyali, Mand
- (b) Merits of a good listener, Qualities of a good listener to make any music programme a success.
- UNIT-V** (a) Study of theoritical details of Ragas prescribed for practical course : Bihag, Kedar, Desh, Bageshwari, Malkauns, Jaunpuri, Bhairavi, Hameer, Kalingda, Kamod, Chhayanat
- (b) Writing in notation of songs (Bandish) or gats prescribed in practical course of Second year
- (c) Writing of a critical appreciation of Radio or T.V. Music (Classical) Programme

PRACTICAL

VOCAL/INSTRUMENTAL

M.M. : 50

1. Study of the following Ragas : Bihag, Kedar, Desh, Bageshwari, Malkauns, Jaunpuri, Bhairavi, Hameer, Kalingda, Kamod, Chhayanaat
2. Two Vilambit Khayalas/Maseet Khani Gat, with Alap and Tanas or Todas. One Choice of the candidate and one vilambit asked by the examiner. 10 marks
3. Sargam geet and Lakshan geet in all the above Ragas. Playing of a Gat in Jhaptal and Rupak Tal. 3 + 3 = 6
4. Drut Khayal or Raza Khani Gat with Tanas or Todas in any five of the above mentioned Ragas. 4 + 4 = 8
5. Singing of a Dhrupad Dhamar with Layakarīs or playing a Gat in other than Teen Tal. 8 marks
6. Study of the following Talas :
Roopak, Teevra, Sooltaal, Deepchandi, Jhumra, Adachautal, Dhamar, Tilwara.
Demonstration of Talas with Dugun Chaugun. 4 marks
Singing of Tarana/Playing of Bol or Jhala 4 marks

SESSIONAL WORK

M.M. : 10

1. Keeping up to date Practical and Theory note books. Attendance in Class and performance in college classes.
2. Ten descriptions of Music Programmes in Radio, T.V. or Personally attended. Participation in Departmental activities.

BOOKS RECOMMENDED -

1. Hindustani Sangeet Paddhati Kramik Pustak Malika (Part-1-4) By V.N. Bhatkhande.
2. Sangeet Visharad, by Vasant.
3. Sangeet Bodh, by S.S. Paranjape.
4. Sangeet Shastra Darpan, By Shanti Govardhan Part I + II
5. Rag Bodh, By B.R. Deodher Part I, II, III
6. Bharatiya Sangeet, Ka Itihass by Umesh Joshi. By Dr. S.S. Paranjape.
7. Sangeet Shastra 1 + 2 + 3 by Mahesh Narayan Saxena.
8. Sangeet Shastra 1, 2, 3 by V.N. Bhatkhande.
9. Sangeetanjali, by Pt. Onkar Nath Thakur.
10. Sitar Malika, by Bhagwat Sharan Sharma.
11. Taal Prakash by Bhagwat Saran.
12. Dhvani Aur Sangeet by Lalit Kishore Singh.

- - - - -

ENGLISH LITERATURE
PAPER-I
MODERN ENGLISH LITERATURES (Paper Code-0175)

M.M. 75

All Questions are compulsory.

- Note :
1. Unit-I is compulsory. Two passages from each of the units I to V to be set and three to be attempted. (3 x 5 = 15)
 2. Short answer questions from unit VII, seven to be set and five to be attempted. (5 x 2 = 10)
 3. Long answer questions from unit II to VI. Five questions from each unit with internal choice to be set. (5 x 2 = 10)
(Words limit for each answer is 300-400 words)

UNIT-I Annotations

UNIT-II (Poetry)

W.B. Yeats - 'A Prayer for My Daughter, The Second Coming'
T.S. Eliot - 'Love Song of J. Alfred Prufrock'

UNIT-III (Poetry)

Dylan Thomas - 'Lament, 'A Refusal to Mourn the Death'
Larkin - 'Toads', 'At Grass'

UNIT-IV (Prose)

Bertrand Russell - 'On the Value of Scepticism'
Oscar Wilde - 'Happy Prince'

UNIT-V (Drama)

G.B. Shaw - 'Pygmalion'

UNIT-VI (Fiction and short-stories)

Rudyard Kipling - 'Kim'
Short-Stories
Katherine Mansfield - 'A Cup of Tea'

UNIT-VII

1. Elegy,
2. Sonnet,
3. Ode,
4. Morality & Miracle Play,
5. One Act Play,
6. Interlude

BOOKS RECOMMENDED :

1. An Introduction to the study of English Lit. B. Prasad
2. A Glossary of Literary Terms - M.H. Abraham
3. Prose of Today - M. Millan
4. Short stories of Yesterday and Today - M. Millan

PAPER - II
MODERN ENGLISH LITERATURES (Paper Code-0176)

M.M. 75

All questions are compulsory.

- Note :**
1. Unit I is compulsory. Two passages from each of the units II to V to be set and three to be attempted. (3x5 = 15)
 2. Short answer questions from unit VII, seven to be set and five to be attempted. (5x2 = 10)
 3. Long-answer questions from unit II to VI. Five questions from each unit with internal choice to be set. (5x2 = 10)
(Words limit for each answer is 300-400 words)

UNIT-I Annotation

UNIT-II (Poetry)

Sasson - At the Grove of Henry Vaughan.

Owen, W.H. - Strange Meeting

UNIT-III (Poetry)

Auden - Seascape

Ted Hughes - The Howling of Wolves

UNIT-IV (Prose)

Robert Lynd - Forgetting

H. Belloc - A conversation with A Reader

UNIT-V (Drama)

John Galsworthy - Strife

OR J.M. Synge - Riders of the Sea

UNIT-VI William Golding - Lord of the Flies (Fiction)

UNIT-VII 1. Simile 2. Metaphor 3. Alliteration 4. Onomatopoeia 5. Ballad 6. Epic 7. Dramatic Monologue.

BOOK RECOMMENDED -

1. Golden Treasury - Palgrave
2. A Glossary of Literary Terms - M.H. Abrams
3. An Introduction to the study of English literature - B.Prasad

बी.ए./बी.एस.सी. तृतीय वर्ष
प्रश्न पत्र-प्रथम
सुदूर संवेदन एवं भौगोलिक सूचना प्रणाली
(पेपर कोड - 0248)

अधिकतम अंक: 50

- इकाई -1 :** सुदूर संवेदन का अर्थ तथा आधारभूत संकल्पना : परिभाषा, इतिहास, एवं विषय क्षेत्र; विद्युत चुम्बकीय विकिरण : विशेषताएँ, वर्णक्रमीय (SPECTRAL) प्रदेश एवं बैंड; पृथ्वी के धरातल एवं वायुमण्डल के साथ विकिरण अर्जा की अन्योन्यक्रिया, वर्णक्रमीय (SPECTRAL)लक्षण ।
- इकाई -2 :** सुदूर संवेदन के प्रकार : वायु जनित एवं अंतरिक्ष जनित; हवाई छायाचित्र : प्रकार एवं विशेषताएँ; सुदूर संवेदन उपग्रह : प्लेटफार्म एवं संवेदक : सक्रिय एवं निष्क्रिय, संवेदक की विशेषताएँ : स्थानिक विभेदन, वर्णक्रमीय (SPECTRAL) विभेदन, रेडियोमेट्रिक विभेदन, अल्पकालिक विभेदन, उत्पाद ।
- इकाई -3 :** चाक्षुष एवं अंकीय बिम्ब प्रक्रियान्वयण तकनीक; संसाधन मानचित्रण एवं पर्यावरण नियंत्रण में सुदूर संवेदन अनुप्रयोग, भारत में सुदूर संवेदन; उद्भव एवं विकास ।
- इकाई -4 :** भौगोलिक सूचना प्रणाली का परिचय : भूसूचना की परिभाषा, भूसूचना का महत्व एवं विषय क्षेत्र, भौगोलिक सूचना प्रणाली का इतिहास, जी0 आई0 एस0 की संकल्पना, जी0 आई0 एस0 के कार्य - आंकड़ा प्रवेश, संचालन, परिचालन, प्रबंधन, त्रुटि संसूचन, विश्लेषण एवं प्रदर्शन, धरातलपत्रक, सर्वेक्षण, हवाई बिम्ब, उपग्रह आंकड़े एवं बिम्ब, आकड़ों के प्रकार धरातलीय एवं अधरातलीय या लाक्षाणिक ।
- इकाई-5 :** आंकड़ा मॉडल एवं आंकड़ा विश्लेषण : रॉस्टर आंकड़ा एवं उसकी विशेषताएँ, वेक्टर आंकड़ा एवं उसकी विशेषताएँ, रास्टर आंकड़ा विश्लेषण : ग्रिड सेल अथवा पिक्सल, वेक्टर आंकड़ा विश्लेषण धरातलीय आंकड़ा, वेक्टर प्रारूप की रचना धरातलीय एवं अधरातलीय आंकड़ा प्रबंधन, धरातलीय सूचना तकनीक ।

Books Recommended:

1. Bhatta, B. (2010): Remote Sensing and GIS, Oxford University Press, New Delhi.
2. Campbell, J.B. (2002): Introduction to Remote Sensing. 5th edition, Taylor and Francis, London
3. Curran, P.J. (1985): Principles of Remote Sensing, Longman, London
4. Kang-tsung Chang (2003) Geographic Information Systems, Tata McGraw Hill, New Delhi
5. Lillesand, T.M. and Kiefer, R.W. (2000): Remote Sensing and Image Interpretation. 4th edition. John Wiley and Sons, New York
6. Lo Albert, C.P., and Young, K.W (2003) Concepts and Techniques of Geographical Information Systems, Prentice Hall of India Pvt. Ltd., New Delhi.
7. Nag Prithvish and Kudrat M. (1998): Digital Remote Sensing, Concept Publishing Company, New Delhi
8. Star J, and J. Estes, (1994), Geographic Information Systems: An Introduction, Prentice Hall, New Jersey.
9. Williams J. (1995): Geographic information from space, John Wiley and Sons, England,

10. चौनियाल, देवी दत्त (2004), सुदूर संवेदन एवं भौगोलिक सूचना प्रणाली, शारदा पुस्तक भवन, इलाहाबाद-2.

बी.ए./बी.एस.सी. तृतीय वर्ष
प्रश्न पत्र-द्वितीय
छत्तीसगढ़ का भूगोल
(पेपर कोड - 0249)

अधिकतम अंक : 50

- इकाई -1.** भौतिक स्वरूप भौमिकीय संरचना उच्चावच, भूआकृतिक प्रदेश, अपवाह, जलवायु ।
- इकाई -2.** प्राकृतिक संसाधन-मिट्टी, प्रकार, विशेषताएँ, वितरण, जलसंसाधन: प्रमुख सिंचाई और बहुउद्देशीय परियोजनाएँ, वन : प्रकार, वितरण, वनों का संरक्षण, खनिज संसाधन - लौह अयस्क, कोयला डोलोमाइट, चुना पत्थर और बाक्साइट छत्तीसगढ़ में शक्ति के संसाधन ।
- इकाई -3.** कृषि- प्रमुख खाद्यान्न फसलें, दलहन एवं अन्य फसलें, जनसंख्या- वृद्धि, वितरण और घनत्व, जनजातीय जनसंख्या । ग्रामीण और नगरीय जनसंख्या ।
- इकाई -4.** उद्योग, लौह इस्पात उद्योग, सिमेंट चीनी, एल्युमिनीयम, छत्तीसगढ़ के औद्योगिक प्रदेश ।
- इकाई -5.** व्यापार, परिवहन, पर्यटन, छत्तीसगढ़ का सामाजिक आर्थिक विकास ।

Books Recommended:

1. Jha, Vibhash Kumar and Saumya Naiyyar (2013) Chhattisgarh Samagra, Chhattisgarh Rajya Hindi Granth Akadmi, Raipur
2. Kumar, Pramila (2003): Chhattisgarh Ek Bhugolik Addhyayan. Madhya Pradesh Hindi Granth Akadmi, Bhopal
3. Nagesh Jitendra and at all (2014): Chhattisgarh Sandarbh 2014 Jansanmpark Vibhag, C.G. Govt., Raipur
4. Tiwari, Vijay Kumar (): Geography of Chhattisgarh, Himalya Publishing House, Pvt. Ltd
5. Tripathi, Kaushlendra and Pursottam Chandrakar (2001): Geography of Chhattisgarh, Shardaprakashan, Aazad Nagar , Bilaspur.
6. Verma ,L.N. (2017): Geography of Chhattisgarh, Madhya Pradesh Hindi Granth Akadmi, Bhopal

बी.ए./बी.एस.सी. तृतीय वर्ष
प्रश्न पत्र-तृतीय
प्रायोगिक भूगोल

अधिकतम अंक : 50

खण्ड (अ)

मानचित्र पठन एवं निर्वचन

20

इकाई -1. बैन्ड ग्राफ, हीदर ग्राफ, क्लाइमोग्राफ, पवनारेख ।

इकाई -2. भारतीय स्थलाकृतिक मानचित्र की व्याख्या प्रकार, वर्गीकरण धरतलीय मानचित्र के प्रकार एवं विप्लेषण, राष्ट्रीय एवं अन्तरराष्ट्रीय, भौतिक एवं सांस्कृतिक तत्वों के आधार पर विप्लेषण ।

इकाई -3. उपग्रह बिम्ब : प्रारम्भिक सूचनाओं की व्याख्या बिम्ब निर्वचन : चाक्षुश विधि - भूमि उपयोग भूमि आच्छादन मानचित्रण, जी0 पी0 एस0 का उपयोग एवं अनुप्रयोग ।

खण्ड (ब)

सर्वेक्षण एवं क्षेत्रीय प्रतिवेदन

20

इकाई -4. सर्वेक्षण , समपटल सर्वेक्षण, प्रतिच्छेदन एवं स्थिति निर्धारण ।

इकाई -5. भूगोल में क्षेत्रीय कार्य का महत्व किसी छोटे क्षेत्र का भौतिक सामाजिक आर्थिक सर्वेक्षण और रिपोर्ट तैयार करना ।

प्रायोगिक पुस्तिका और मौखिक परिक्षण परीक्षा

10

Books Recommended:

1. Archer, J.E. and Dalton, T.H. (1968): *Field Work in Geography*. William Clowes and Sons Ltd. London and Beccles.
2. Bolton, T. and Newbury, P.A. (1968): *Geography through Fieldwork*. Blandford Press, London.
3. Campell, J. B. (2003): *Introduction to Remote Sensing*. 4th edition. Taylor and Francis, London.
4. Chaunial, D. D. (2004): *Remote Sensing and Geographical Information System*(in Hindi), Sharda Pustak Bhawan, Allahabad
5. Cracknell, A. and Ladson, H. (1990): *Remote Sensing Year Book*. Taylor and Francis, London.
6. Curran, P.J. (1985): *Principles of Remote Sensing*. Longman, London.
7. Davis, R.E. and Foote, F.S. (1953): *Surveying*, 4th edition, McGraw Hill Publication, New York
8. `
9. Deekshatulu, B.L. and Rajan, Y.S. (ed.) (1984): *Remote Sensing*. Indian Academy of Science, Bangalore.
10. Floyd, F. and Sabins, Jr. (1986): *Remote Sensing: Principles and Interpretation*. W.H. Freeman, New York.
11. Gautam, N.C. and Raghavswamy, V. (2004). *Land Use/ Land Cover and Management Practices in India*. B.S. Publication., Hyderabad.
12. Jensen, J.R. (2004): *Remote Sensing of the Environment: An Earth Resource Perspective*. Prentice-Hall, Englewood Cliffs, New Jersey. Indian reprint available.

13. Jones, P.A.(1968): *Fieldwork in Geography*, Longmans, Green and Company Ltd., First Publication, London
14. Kanetker, T.P. and Kulkarni, S.V.(1967): *Surveying and Levelling*, Vol I and II V.G. Prakashan, Poona.
15. Lillesand, T.M. and Kiefer, R.W. (2000): *Remote Sensing and Image Interpretation*. John Wiley and Sons, New York.
16. Monkhouse, F. J. (1985): *Maps and Diagrams*. Methuen, London.
17. Nag, P. (ed.) (1992): *Thematic Cartography and Remote Sensing*. Concept Publishing Company, New Delhi.
18. Natrajan, V. (1976): *Advanced Surveying*, B.I. Publications., Mumbai.
19. Rampal, K.K. (1999): *Handbook of Aerial Photography and Interpretation*. Concept Publishing. Company, New Delhi.
20. Raisz, E. (1962): *Principles of Cartography*, McGraw Hill, New York.
21. Robinson, A. H., Sale. R. D., Morrison, J. L. and Muehrcke, P. C. (1984): *Elements of Cartography*. 5th edition, John Wiley and Sons, Inc. New York.
22. Sarkar, A. K. (1997): *Practical Geography: A Systematic Approach*. Orient Longman, Kolkata
23. Sharma, J. P. (2001): *Prayogik Bhugol.*, Rastogi Publication, Meerut 3rd . edition.
24. Singh, R.L. and Singh Rana P.B. (1993): *Elements of Practical Geography*. (Hindi and English editions). Kalyani Publishers, New Delhi.
25. Stoddard, Robert H. (1982): *Field Techniques and Research Methods in Geography*. Kendall/Hunt Pub. Dubuque IO.

प्राचीन भारतीय इतिहास, संस्कृति तथा पुरातत्व
Ancient India History, Culture and Archaeology

बी.ए. तृतीय वर्ष

B.A. Part III Year

पाठ्यक्रम
Syllabus

सत्र : 2018–19

Session 2018-19

बी.ए. तृतीय वर्ष
प्राचीन भारतीय इतिहास, संस्कृति तथा पुरातत्व
प्रथम : प्रश्न-पत्र
B.A. Part III Paper I
भारतीय वास्तु तथा कला के मूल तत्व (पेपर कोड 0266)
Elements of Ancient Indian Architecture and Art

पूर्णांक : 50

- इकाई- 1 हड़प्पा कालीन वास्तु, मौर्य कालीन वास्तु, स्तूप वास्तु (सांची, भरहुत तथा अमरावती), पश्चिमी भारत के चैत्यगृह तथा विहार- भाजा, कार्ले, कोण्डाने, अजंता और एलोरा।
(Architecture of Harappan period, Mauryan period; Stupa Architecture (Sanchi, Bharhut and Amravati), Chaityas and Viharas of Western India (Bhaja, Karle, Kondan, Ajanta and Ellora)
- इकाई- 2 मंदिर वास्तु का उद्भव एवं विकास, मंदिर वास्तु की विभिन्न शैली-नागर, बेसर एवं द्रविड़।
(Origin and development of Temple Architecture, Various Styles of Temple Architecture – Nagara, Vessara & Dravida)
- इकाई- 3 मूर्तिकला-हड़प्पा कालीन, मौर्यकालीन, शुंगकालीन, कुषाण कालीन (गांधार एवं मथुरा)।
(Iconography – Harappa period, Mauryan period, Shunga period, Kushana period (Gandhara & Mathura)
- इकाई- 4 प्राचीन भारत में मूर्ति पूजा का उद्भव एवं विकास (विष्णु, शिव, बौद्ध एवं जैन प्रतिमा के विशेष संदर्भ में)।
(Origin and development of idol worship in Ancient India, with special reference to Vishnu, Shiva, Jaina & Buddhist sculptures)
- इकाई- 5 प्रागैतिहासिक चित्रकला, सिधंनपुर की चित्रकला, काबरा पहाड़ एवं अजंता और बाघ की चित्रकला।
(Pre-historic paintings, Painting of Singhanpur and Kabrapahar, Ajanta & Bagh Paintings)

अनुशंसित ग्रंथ :

- | | |
|--|--|
| 1. वासुदेव शरण अग्रवाल | - भारतीय कला भाग-1 |
| 2. रामनाथ मिश्र | - भारतीय मूर्तिकला |
| 3. कृष्णदत्त बाजपेयी | - भारतीय वास्तुकला का इतिहास |
| 4. वासुदेव उपाध्याय | - प्राचीन भारतीय स्तूप, गुहा एवं मंदिर |
| 5. कृष्णदत्त बाजपेयी एवं संतोष कुमार बाजपेयी | - भारतीय कला |
| 6. सच्चिदानंद पांडेय | - मंदिर स्थापत्य का इतिहास |
| 7. जयनारायण पांडेय | - भारतीय कला |
| 8. मारुतिनंदन प्रसाद तिवारी तथा कमल गिरी | - भारतीय प्रतिमा विज्ञान |
| 9. ए.एल. श्रीवास्तव | - भारतीय कला |
| 10. A.. Coomarswami | - History of Indian and Indonesian Art |
| 11. Percy Brown | - Indian Architecture, Vol. I |
| 12. Krishnadeva | - Temples of North India |
| 13. S.Kramrisch | - Hindu Temple Part I & II |

बी.ए. तृतीय वर्ष
द्वितीय : प्रश्न-पत्र (अ)
B.A. Part III Paper II (A)
भारतीय पुरातत्व के मूलतत्व (पेपर कोड 0267)
Elements of Indian Archaeology

पूर्णांक : 50

- इकाई- 1 पुरातत्व विज्ञान की परिभाषा, विस्तार क्षेत्र का अध्ययन, अन्य विषयों से संबंध।
(Definition, extent and relationship of Archaeology with other branches of Studies)
- इकाई- 2 भारत में पुरातत्व का इतिहास, प्राचीन स्थलों की खोज एवं तिथि निर्धारण।
(History of Indian Archaeology, Discovery of Ancient Sites and Dating Methods)
- इकाई- 3 उत्खनन-विधियाँ, सर्वेक्षण, स्तर विन्यास, उत्खनन का लेखा-जोखा।
(Methods of Excavation, Survey, Stratification, Documentation of excavation)
- इकाई- 4 भृदभाण्ड, गैरिक भृदभाण्ड, चित्रित धूसर भृदभाण्ड, काले और लाल भृदभाण्ड, उत्तरी कृष्ण मर्जित भृदभाण्ड (एन.वी.पी.)।
(Pottery: Ochre Coloured Pottery (O.C.P.), Painted Grey Ware (P.G.W.), Black & Red Ware (B.R.W.), Northern Black Polished Ware (N.B.P.W.)
- इकाई- 5 प्रमुख पुरास्थलों का अध्ययन-
कालीबंगा, एरण, कौशाम्बी, हस्तिनापुर, ब्रह्मगिरी, सिरपुर, मल्हार।
(Important Archaeological sites: Kalibangan, Eran, Koshambi, Hastinapur, Brahmgi, Sirpur, Malhar)

अनुशंसित ग्रंथ :

- | | |
|-------------------------|--------------------------|
| 1. के.डी. बाजपेयी | - मध्यप्रदेश का पुरातत्व |
| 2. आर.एम. व्हीलर | - पृथ्वी से पुरातत्व |
| 3. बी.एन.पुरी | - पुरातत्व विज्ञान |
| 4. जयनारायण पाण्डेय | - पुरातत्व विमर्श |
| 5. राकेश प्रकाश पाण्डेय | - पुरातत्व विज्ञान |
| 6. मदन मोहन सिंह | - पुरातत्व की रूपरेखा |

“अथवा”

बी.ए. तृतीय वर्ष

द्वितीय : प्रश्न-पत्र (ब)

B.A. Part III Paper II (B)

(ब) पुराभिलेख एवं मुद्राशास्त्र के मूल तत्व (पैपर कोड 0268)

Elements of Palaeography and Numismatics

पूर्णांक : 50

- इकाई- 1 (1) प्राचीन भारतीय इतिहास की पुनर्रचना में अभिलेखों का महत्व।
(Significance of Epigraphy for writing Ancient Indian History)
(2) लेखन कला का उद्भव एवं विकास।
(Origin and development of writing skill)
(3) अभिलेखों में प्रयुक्त भाषाएँ, लिपियाँ तथा सामग्री।
(Languages, Scripts and materials used for Inscriptions)
- इकाई- 2 निम्नलिखित अभिलेखों का ऐतिहासिक महत्व : (Historic significance of the following Inscription)
(1) अशोक का द्वितीय शिलालेख। (2nd rock edict of Ashoka)
(2) अशोक का बारहवां शिलालेख। (12th rock edict of Ashoka)
(3) हेलियोडोरस का बेसनगर स्तम्भलेख। (Besnagar Pillar Inscription of Heliodorus)
(4) गौतमी पुत्र सातकर्णी का नासिक अभिलेख। (Nasik Inscription of Gautamiputra Satkarni)
(5) खारवेल का हाथिगुफा अभिलेख। (Hanthigumpha Inscription of Kharvela)
(6) रुद्र दामन का जूनागढ़ (Junagarh Inscription of Rudradaman)
- इकाई- 3 (1) समुद्र गुप्त का प्रयाग प्रशस्ति अभिलेख। (Allahabad Pillar Inscription of Samudragupta)
(2) पुलकेशिन द्वितीय का एहोल लेख। (Aihole Inscription of Pulakeshin – II)
(3) हर्ष का बांसखेड़ा अभिलेख। (Banskhera Inscription of Harsha)
(4) महारानी वासटा का लक्ष्मण मंदिर अभिलेख। (Lakshman temple Inscription of Queen Vasta)
(5) जाजल्ल देव प्रथम का रतनपुर अभिलेख। (Ratanpur Inscription of Jajalladeva)
- इकाई- 4 इतिहास की पुनर्रचान में मुद्रा का महत्व, मुद्रा का उद्भव एवं प्राचीनता, मुद्रा निर्माण तकनीक तथा आहत सिक्के।
(Significance of Numismatics for writing Ancient Indian History, Origin and antiquity of Coins, Minting Techniques of Coins, Punch-Marked Coins)
- इकाई- 5 कुषाण कालीन सिक्के, जनपदीय सिक्के (तक्षशिला, कौशाम्बी, एरण), गुप्त कालीन मुद्राएँ, समुद्र गुप्त, चन्द्रगुप्त द्वितीय, एवं कुमारगुप्त की स्वर्ण रजत एवं ताम्र मुद्राएँ स्थानीय मुद्राएँ शरभपुरीय, नलवंशीय एवं कलचुरी राजवंश।
Kushana Coins, Janpada Coins (Taxila, Kaushambi, Eran), Gupta coins, Gold, Silver and Copper coins of Samudragupta, Chandragupta-II and Kumaragupta; Regional coins: Sharabhपुरीया, Nala, Kalachuri)

अनुशंसित ग्रंथ :

- | | |
|--|---|
| 1. डी.सी.सरकार | – इंडियन एपिग्राफी |
| 2. डी.सी.सरकार | – सेलेक्ट इन्सक्रिप्शन्स भाग 1 व 2 |
| 3. एस.एच.दानी | – इंडियन पैलियोग्राफी |
| 4. वासुदेव बाजपेयी | – प्राचीन भारतीय अभिलेखों का अध्यय |
| 5. कृष्णदत्त बाजपेयी, कन्हैयालाल अग्रवाल संतोष कुमार बाजपेयी | – ऐतिहासिक भारतीय अभिलेख |
| 6. परमेश्वरी लाल गुप्ता | – प्राचीन भारतीय मुद्राएँ |
| 7. डी.सी.सरकार | – स्टडीज एवं इंडियन क्वाएन्स |
| 8. ए.के.शरण | – ट्राइबल क्वाएन्स |
| 9. भास्कर चट्टोपाध्याय | – द एज ऑफ दि कुषाणजःए न्यूमिस्मेटिक स्टडी |
| 10. ए.एस. अल्तेकर | – गुप्तकालीन मुद्राएँ |
| 11. राजवंत राव | – प्राचीन भारतीय मुद्राएँ |

प्रायोगिक तथा मौखिक परीक्षा

- | | |
|--|---------------|
| 1. किसी महत्वपूर्ण पुरातात्विक/ऐतिहासिक स्थान का भ्रमण एवं विवरण प्रस्तुति | पूर्णांक – 50 |
| 2. पुरावस्तुओं की पहचान | – 20 अंक |
| 3. मौखिकी | – 20 अंक |
| | – 10 अंक |

योग – 50 अंक

(डॉ. दिनेश नंदिनी परिहार)

अध्यक्ष

केन्द्रीय अध्ययन मंडल

(डॉ. अनुप परसाई)

सदस्य

केन्द्रीय अध्ययन मंडल

(डॉ. नितेश कुमार मिश्र)

सदस्य

केन्द्रीय अध्ययन मंडल

MATHEMATICS

There shall be three theory papers. Two compulsory and one optional. Each paper carrying 50 marks is divided into five units and each unit carry equal marks.

B.A. Part-III PAPER - I ANALYSIS

REAL ANALYSIS

UNIT-I Series of arbitrary terms. Convergence, divergence and oscillation. Abel's and Dirichlet's test. Multiplication of series. Double series. Partial derivation and differentiability of real-valued functions of two variables. Schwarz and Young's theorem. Implicit function theorem. Fourier series. Fourier expansion of piecewise monotonic functions.

UNIT-II Riemann integral. Integrability of continuous and monotonic functions. The fundamental theorem of integral calculus. Mean value theorems of integral calculus. Improper integrals and their convergence. Comparison tests. Abel's and Dirichlet' tests. Frullani's integral. Integral as a function of a parameter. Continuity, derivability and integrability of an integral of a function of a parameter.

COMPLEX ANALYSIS

UNIT-III Complex numbers as ordered pairs. Geometrical representation of complex numbers. Stereographic projection. Continuity and differentiability of complex functions. Analytic functions. Cauchy-Riemann equations. Harmonic functions. Elementary functions. Mapping by elementary functions. Mobius transformations. Fixed points, Cross ratio. Inverse points and critical mappings. Conformal mappings.

METRIC SPACES

UNIT-IV Definition and examples of metric spaces. Neighbourhoods, Limit points, Interior points, Open and Closed sets, Closure and interior. Boundary points, Sub-space of a metric space. Cauchy sequences, Completeness, Cantor's intersection theorem. Contraction principle, construction of real numbers as the completion of the incomplete metric space of rationals. Real numbers as a complete ordered field.

UNIT-V Dense subsets. Baire Category theorem. Separable, second countable and first countable spaces. Continuous functions. Extension theorem. Uniform continuity, isometry and homeomorphism. Equivalent metrics. Compactness, sequential compactness. Totally bounded spaces. Finite intersection property. Continuous functions and Compact sets, Connectedness, Components, Continuous functions and Connected sets.

REFERENCES :

1. T.M. Apostol, Mathematical Analysis, Narosa Publishing House, New Delhi, 1985.
2. R.R. Goldberg, Real Analysis, Oxford & IBH publishing Co., New Delhi, 1970.
3. S. Lang, Undergraduate Analysis, Springer-Verlag, New York, 1983.
4. D. Somasundaram and B. Choudhary, A First Course in Mathematical Analysis, Narosa Publishing House, New Delhi, 1997.
5. Shanti Narayan, A Course of Mathematical Analysis, S. Chand & Co. New Delhi.
6. P.K. Jain and S.K. Kaushik, An introduction to Real Analysis, S. Chand & Co., New Delhi, 2000.
7. R.V. Churchill and J.W. Brown, Complex Variables and Applications, 5th Edition, McGraw- Hill, New York, 1990.
8. Mark J. Ablowitz and A.S. Fokas, Complex Variables : Introduction and Applications, Cambridge University Press, South Asian Edition, 1998.
9. Shanti Narayan, Theory of Functions of a Complex Variable, S. Chand & Co., New Delhi.
10. E.T. Copson, Metric Spaces, Cambridge University Press, 1968.
11. P.K. Jain and K. Ahmad, Metric Spaces, Narosa Publishing House, New Delhi, 1996.
12. G.F. Simmons, Introduction to Topology and Modern Analysis, McGraw-Hill, 1963.

B.A. Part-III
PART - II
ABSTRACT ALGEBRA

- UNIT-I** Group-Automorphisms, inner automorphism. Automorphism of groups and their computations, Conjugacy relation, Normaliser, Counting principle and the class equation of a finite group. Center for Group of prime-order, Abelianizing of a group and its universal property. Sylow's theorems, Sylow subgroup, Structure theorem for finite Abelian groups.
- UNIT-II** Ring theory-Ring homomorphism. Ideals and quotient rings. Field of quotients of an integral domain, Euclidean rings, polynomial rings, Polynomials over the rational field. The Eisenstein criterion, polynomial rings over commutative rings, Unique factorization domain. R unique factorisation domain implies so is $R[x_1, x_2, \dots, x_n]$. Modules, Submodules, Quotient modules, Homomorphism and Isomorphism theorems.
- UNIT-III** Definition and examples of vector spaces. Subspaces. Sum and direct sum of subspaces. Linear span, Linear dependence, independence and their basic properties. Basis. Finite dimensional vector spaces. Existence theorem for bases. Invariance of the number of elements of a basis set. Dimension. Existence of complementary subspace of a finite dimensional vector space. Dimension of sums of subspaces. Quotient space and its dimension.
- UNIT-IV** Linear transformations and their representation as matrices. The Algebra of linear transformations. The rank nullity theorem. Change of basis. Dual space. Bidual space and natural isomorphism. Adjoint of a linear transformation. Eigenvalues and eigenvectors of a linear transformation. Diagonalisation. Annihilator of a subspace. Bilinear, Quadratic and Hermitian forms.
- UNIT-V** Inner Product Spaces-Cauchy-Schwarz inequality. Orthogonal vectors. Orthogonal Complements. Orthonormal sets and bases. Bessel's inequality for finite dimensional spaces. Gram-Schmidt Orthogonalization process.

REFERENCES :

1. I.N. Herstein, Topics in Algebra, Wiley Eastern Ltd., New Delhi, 1975.
2. N. Jacobson, Basic Algebra, Vols. I & II. W.H. Freeman, 1980 (also published by Hindustan Publishing Company).
3. Shanti Narayan, A Text Book of Modern Abstract Algebra, S.Chand & Co. New Delhi.
4. K.B. Datta, Matrix and Linear Algebra, Prentice Hall of India Pvt. Ltd., New Delhi, 2000.
5. P.B. Bhattacharya, S.K. Jain and S.R. Nagpal, Basic Abstract Algebra (2nd Edition) Cambridge University Press, Indian Edition, 1997.
6. K. Hoffman and R. Kunze, Linear Algebra, (2nd Edition), Prentice Hall. Englewood Cliffs, New Jersey, 1971.
7. S.K. Jain, A. Gunawardena and P.B. Bhattacharya, Basic Linear Algebra with MATLAB. Key College Publishing (Springer-Verlag) 2001.
8. S. Kumaresan, Linear Algebra, A Geometric Approach, Prentice-Hall of India, 2000.
9. Vivek Sahai and Vikas Bist, Algebra, Narosa Publishing House, 1997.
10. I.S. Luther and I.B.S.Passi, Algebra, Vol. I-Groups, Vol. II-Rings. Narosa Publishing House (Vol. I-1996, Vol. II-1999)
11. D.S. Malik, J.N. Mordeson, and M.K. Sen, Fundamentals of Abstract Algebra, McGraw- Hill International Edition, 1997.

B.A. Part-III
PAPER - III - (OPTIONAL)
(I) PRINCIPLES OF COMPUTER SCIENCE

- UNIT-I** **Data Storage** - Storage of bits. Main Memory. Mass Storage. Coding Information of Storage. The Binary System. Storing integers, storing fractions, communication errors.
Data Manipulation - The Central Processing Unit. The Stored-Program Concept. Programme Execution. Other Architectures. Arithmetic/Logic Instructions. Computer- Peripheral Communication.
- UNIT-II** **Operating System and Networks** - The Evolution of Operating System. Operating System Architecture. Coordinating the Machine's Activities. Handling Competition Among Process. Networks. Networks Protocol.
Software Engineering - The Software Engineering Discipline. The Software Life Cycle. Modularity. Development Tools and Techniques. Documentation. Software Ownership and Liability.
- UNIT-III** **Algorithms** - The Concept of an Algorithm, Algorithm Representation. Algorithm Discovery. Iterative Structures. Recursive Structures. Efficiency and Correctness. (Algorithms to be implemented in C++).
Programming Languages - Historical Perspective. Traditional Programming Concepts, Program Units. Language Implementation. Parallel Computing. Declarative Computing.
- UNIT-IV** **Data Structures** - Arrays. Lists. Stacks. Queues. Trees. Customised Data Types. Object Oriented Programming.
File Structure - Sequential Files. Text Files. Indexed Files. Hashed Files. The Role of the Operating System.
Database Structure - General Issues. The Layered Approach to Database Implementation. The Relational Model. Object-Oriented Database. Maintaining Database Integrity. E-R models
- UNIT-V** **Artificial Intelligence** - Some Philosophical Issues. Image Analysis. Reasoning, Control System Activities. Using Heuristics. Artificial Neural Networks. Application of Artificial Intelligence.
Theory of Computation - Turing Machines. Computable functions. A Non computable Function. Complexity and its Measures. Problem Classification.

REFERENCES :

1. J. Glen Brookshear, Computer Science : An Overview, Addition -Wesley.
2. Stanley B. Lippman, Josee Lojoie, C++ Primer (3rd Edition), Addison-Wesley.

B.A. Part-III
PAPER - III - (OPTIONAL)
(II) DISCRETE MATHEMATICS

UNIT-I **Sets and Propositions** - Cardinality. Mathematical Induction, Principle of inclusion and exclusion.
Computability and Formal Languages - Ordered Sets. Languages. Phrase Structure Grammars.
Types of Grammars and Languages. Permutations. Combinations and Discrete Probability.

UNIT-II **Relations and Functions** - Binary Relations, Equivalence Relations and Partitions. Partial Order
Relations and Lattices. Chains and Antichains. Pigeon Hole Principle.

Graphs and Planar Graphs - Basic Terminology. Multigraphs. Weighted Graphs. Paths and
Circuits. Shortest Paths. Eulerian Paths and Circuits. Travelling Salesman Problem. Planner Graphs.
Trees.

UNIT-III **Finite State Machines** - Equivalent Machines. Finite State Machines as Language Recognizers.
Analysis of Algorithms - Time Complexity. Complexity of Problems. Discrete Numeric Functions
and Generating Functions.

UNIT-IV **Recurrence Relations and Recursive Algorithms** - Linear Recurrence Relations with constant
coefficients. Homogeneous Solutions. Particular Solution. Total Solution. Solution by the Method of
Generating Functions. Brief review of Groups and Rings.

UNIT-V **Boolean Algebras** - Lattices and Algebraic Structures. Duality, Distributive and Complemented
Lattices. Boolean Lattices and Boolean Algebras. Boolean Functions and Expressions. Propositional
Calculus. Design and Implementation of Digital Networks. Switching Circuits.

REFERENCES :

1. C.L. Liu, Elements of Discrete Mathematics, (Second Edition), McGraw Hill, International Edition, Computer Science Series, 1986

B.A. Part-III
PAPER - III - (OPTIONAL)
(III) PROGRAMMING IN C AND NUMERICAL ANALYSIS
(Theory & Practical)

Theory component will have maximum marks 30.

Practical component will have maximum marks 20.

UNIT-I Programmer's model of a computer. Algorithms. Flow Charts. Data Types. Arithmetic and input/output instructions. Decisions control structures. Decision statements. Logical and Conditional operators. Loop. Case control structures. Functions. Recursions. Preprocessors. Arrays. Puppeting of strings. Structures. Pointers. File formatting.

Numerical Analysis

UNIT-II **Solution of Equations:** Bisection, Secant, Regula Falsi, Newton's Method, Roots of Polynomials. **Interpolation:** Lagrange and Hermite Interpolation, Divided Differences, Difference Schemes, Interpolation Formulas using Differences. Numerical Differentiation. Numerical Quadrature: Newton-Cote's Formulas. Gauss Quadrature Formulas, Chebychev's Formulas.

UNIT-III **Linear Equations:** Direct Methods for Solving Systems of Linear Equations (Gauss Elimination, LU Decomposition, Cholesky Decomposition), Iterative Methods (Jacobi, GaussSeidel, Relaxation Methods).
The Algebraic Eigenvalue problem: Jacobi's Method, Givens' Method, Householder's Method, Power Method, QR Method, Lanczos' Method.

UNIT-IV **Ordinary Differential Equations:** Euler Method, Single-step Methods, Runge-Kutta's Method, Multi-step Methods, Milne-Simpson Method, Methods Based on Numerical Integration, Methods Based on Numerical Differentiation, Boundary Value Problems, Eigenvalue Problems.
Approximation: Different Types of Approximation, Least Square Polynomial Approximation, Polynomial Approximation using Orthogonal Polynomials, Approximation with Trigonometric Functions, Exponential Functions, Chebychev Polynomials, Rational Functions.

Monte Carlo Methods

Unit-V Random number generation, congruential generators, statistical tests of pseudo-random numbers. Random variate generation, inverse transform method, composition method, acceptance rejection method, generation of exponential, normal variates, binomial and Poisson variates.
Monte Carlo integration, hit or miss Monte Carlo integration, Monte Carlo integration for improper integrals, error analysis for Monte Carlo integration.

REFERENCES :

1. Henry Mullish and Herbert L. Cooper, Spirit of C: An Introduction to Modern Programming, Jaico Publishers, Bombay.
2. B.W. Kernighan and D.M. Ritchie. The C Programming Language 2nd Edition, (ANSI features) Prentice Hall, 1989.
3. Peter A Darnel and Philip E. Margolis, C : A Software Engineering Approach, Narosa Publishing House, 1993.
4. Robert C. Hutehison and Steven B. Just, Programming using C Language, McGraw Hill, 1988.
5. Les Hancock and Morris Krieger, The C Primer, McGraw Hill, 1988.
6. V. Rajaraman, Programming in C, Prentice Hall of India, 1994.
7. Byron S. Gottfried, Theory and Problems of Programming with C, Tata McGraw-Hill Publishing Co. Ltd., 1998.
8. C.E. Froberg, Introduction to Numerical Analysis, (Second Edition), Addison-Wesley, 1979.
9. James B. Scarborough, Numerical Mathematical Analysis, Oxford and IBHPublishing Co. Pvt. Ltd. 1966.

10. Melvin J. Maron, Numerical Analysis A Practical Approach, Macmillan publishing Co., Inc. New York, 1982.
11. M.K. Jain, S.R.K. Iyengar, R.K. Jain, Numerical Methods Problems and Solutions, New Age International (P) Ltd., 1996.
12. M.K. Jain, S.R.K. Iyengar, R.K. Jain, Numerical Methods for Scientific and Engineering Computation, New Age International (P) Ltd., 1999.
13. R.Y. Rubistein, Simulation and the Monte Carlo Methods, John Wiley, 1981.
14. D.J. Yakowitz, Computational Probability and Simulation, Addison-Wesley, 1977.

PAPER - III - (OPTIONAL)
(IV) PRACTICAL
PROGRAMMING IN C AND NUMERICAL ANALYSIS

LIST OF PRACTICAL TO BE CONDUCTED...

1. Write a program in C to find out the largest number of three integer numbers.
2. Write a program in C to accept monthly salary from the user, find and display income tax with the help of following rules :

Monthly Salary	Income Tax
9000 or more	40% of monthly salary
7500 or more	30% of monthly salary
7499 or less	20% of monthly salary

3. Write a program in C that reads a year and determine whether it is a leap year or not.
4. Write a program in C to calculate and print the first n terms of fibonacci series using looping statement.
5. Write a program in C that reads in a number and single digit. It determines whether the first number contains the digit or not.
6. Write a program in C to computes the roots of a quadratic equation using case statement.
7. Write a program in C to find out the largest number of four numbers using function.
8. Write a program in C to find the sum of all the digits of a given number using recursion.
9. Write a program in C to calculate the factorial of a given number using recursion.
10. Write a program in C to calculate and print the multiplication of given 2D matrices.
11. Write a program in C to check that whether given string palindrome or not.
12. Write a Program in C to calculate the sum of series:

$$1 + x + \frac{1}{2!}x^2 + \frac{1}{3!}x^3 + \dots + \frac{1}{n!}x^n$$

13. Write a program in C to determine the grade of all students in the class using Structure. Where structure having following members - name, age, roll, sub1, sub2, sub3, sub4 and total.
14. Write a program in C to copy one string to another using pointer. (Without using standard library functions).
15. Write a program in C to store the data of five students permanently in a data file using file handling.

इतिहास अध्ययनशाला
पं.रविशंकर शुक्ल विश्वविद्यालय, रायपुर
केन्द्रीय अध्ययन मण्डल की बैठक (इतिहास)

विषय— इतिहास

प्रश्न पत्र — प्रथम

संकाय— सामाजिक विज्ञान

कक्षा का नाम — बी.ए. तृतीय वर्ष

प्रश्न पत्र का नाम — भारत का इतिहास 1761 ई. से 1947 ई. तक

नवीन संशोधित पाठ्यक्रम

इकाई-1

1. भारत में यूरोपीयनों का आगमन
2. आंग्ल-फ्रांसीसी प्रतिस्पर्धा— कर्नाटक युद्ध
3. ब्रिटिश साम्राज्य का विस्तार — प्लासी एवं बक्सर युद्ध
4. ब्रिटिश साम्राज्य का विस्तार — वेलेजली की सहायक संधि, डलहौजी की हड़प नीति

इकाई-2

5. ब्रिटिश प्रशासनिक सुधार — लार्ड विलियम बैंटिंग
6. लार्ड कर्जन का प्रशासन
7. यूरोपीय वाणिज्यवाद का भारत में प्रभाव—उद्योगों व व्यापार का पतन

इकाई-3

8. विभिन्न सामाजिक वर्ग—कृषक, मजदूर, महिलाएं
9. कृषि का पतन एवं कृषक आंदोलन
10. भूराजस्व व्यवस्थाएं — स्थायी बंदोबस्त, रैयतवाड़ी, महालवाड़ी
11. भारतीय पुनर्जागरण—ब्रह्म समाज, आर्य समाज
12. मुस्लिम समाज सुधार आंदोलन—अलीगढ़ आंदोलन

इकाई-4

13. रेल यातायात का उद्भव एवं विकास
14. हस्तशिल्प उद्योगों का पतन
15. ईस्ट इंडिया कंपनी का रियासतों से संबंध
16. पाश्चात्य शिक्षा का विकास एवं प्रेस

इकाई-5

17. ब्रिटिश नियंत्रण काल में छत्तीसगढ़ की प्रशासनिक व्यवस्था
18. ब्रिटिश कालीन प्रशासनिक व्यवस्था
19. छत्तीसगढ़ में सामाजिक सुधार—कबीर पंथ एवं सतनाम पंथ
20. छत्तीसगढ़ की जनजातीय संस्कृति

इतिहास अध्ययनशाला
पं.रविशंकर शुक्ल विश्वविद्यालय, रायपुर
केन्द्रीय अध्ययन मण्डल की बैठक (इतिहास)

विषय— इतिहास

प्रश्न पत्र — द्वितीय

संकाय— सामाजिक विज्ञान

कक्षा का नाम — बी.ए. तृतीय वर्ष

प्रश्न पत्र का नाम — भारत के राष्ट्रीय आन्दोलन का इतिहास 1857ई. से 1947ई. तक

नवीन संशोधित पाठ्यक्रम

इकाई-1

1. राष्ट्रवाद का उदय
2. 1857ई. की क्रांति : कारण एवं परिणाम
3. भारतीय राष्ट्रीय कांग्रेस की स्थापना — उद्देश्य, उदारवाद, उग्रवाद

इकाई-2

4. बंगाल का विभाजन एवं स्वदेशी आंदोलन
5. क्रांतिकारी आंदोलन— प्रथम एवं द्वितीय चरण
6. भारतीय राजनीति में साम्प्रदायिकता का उदय— मुस्लिम लीग की स्थापना
7. होमरूल आंदोलन
8. लखनऊ समझौता

इकाई-3

9. गांधीवादी आंदोलन — असहयोग आंदोलन
10. सविनय अवज्ञा आंदोलन
11. आदिवासी मजदूर एवं कृषक आंदोलन
12. भारत छोड़ो आंदोलन

इकाई-4

13. आजाद हिन्द फौज
14. भारत का विभाजन एवं स्वतंत्रता
15. रियासतों का विलिनीकरण
16. भारतीय संविधान की प्रमुख विशेषताएं

इकाई-5

17. छत्तीसगढ़ में 1857ई. की क्रांति— नारायण सिंह एवं हनुमान सिंह
18. बस्तर का मुरिया विद्रोह एवं भूमकाल आंदोलन
19. छत्तीसगढ़ में गांधीवादी आंदोलन
20. छत्तीसगढ़ में रियासतों का विलिनीकरण

बी.ए. तृतीय वर्ष, इतिहास
प्रश्न पत्र – प्रथम
भारत का इतिहास 1761 ई. से 1947 ई. तक

इकाई-1

1. भारत में यूरोपीयनों का आगमन
2. आंग्ल-फ्रांसीसी प्रतिस्पर्धा- कर्नाटक युद्ध
3. ब्रिटिश साम्राज्य का विस्तार – प्लासी एवं बक्सर युद्ध
4. ब्रिटिश साम्राज्य का विस्तार – वेलेजली की सहायक संधि, डलहौजी की हड़प नीति

इकाई-2

5. ब्रिटिश प्रशासनिक सुधार – लार्ड विलियम बैंटिंग
6. लार्ड कर्जन का प्रशासन
7. यूरोपीय वाणिज्यवाद का भारत में प्रभाव-उद्योगों व व्यापार का पतन
8. विभिन्न सामाजिक वर्ग-कृषक, मजदूर, महिलाएं

इकाई-3

9. कृषि का पतन एवं कृषक आंदोलन
10. भूराजस्व व्यवस्थाएं – स्थायी बंदोबस्त, रैयतवाड़ी, महालवाड़ी
11. भारतीय पुनर्जागरण-ब्रह्म समाज, आर्य समाज
12. मुस्लिम समाज सुधार आंदोलन-अलीगढ़ आंदोलन

इकाई-4

13. रेल यातायात का उद्भव एवं विकास
14. हस्तशिल्प उद्योगों का पतन
15. ईस्ट इंडिया कंपनी का रियासतों से संबंध
16. पाश्चात्य शिक्षा का विकास एवं प्रेस

इकाई-5

17. ब्रिटिश नियंत्रण काल में छत्तीसगढ़ की प्रशासनिक व्यवस्था
18. ब्रिटिश कालीन प्रशासनिक व्यवस्था
19. छत्तीसगढ़ में सामाजिक सुधार-कबीर पंथ एवं सतनाम पंथ
20. छत्तीसगढ़ की जनजातीय संस्कृति

संदर्भ ग्रन्थ सूची:-

- 1) एल.पी. शर्मा – आधुनिक भारत
- (2) ए.आर. देसाई – आधुनिक राष्ट्रवाद की सामाजिक पृष्ठभूमि
- (3) रजनी पामदत्त – इंडिया टुडे
- (4) ग्रोवर एवं यशपाल – आधुनिक भारत का इतिहास एवं नवीन मूल्यांकन (1707–1969)
- (5) एस.आर. शर्मा – मेकिंग आफ मॉडर्न इंडिया
- (6) प्रताप सिंह – आधुनिक भारत-1, खंड-3
- (7) एम.एस. जैन – आधुनिक भारत का इतिहास
- (8) एस.पी. नायर – सोशल एंड इकॉनामिक हिस्ट्री आफ मॉडर्न इंडिया
- (9) S.P. Nanda - Economic and Social History of Modern India
- (10) V.A. Narain - Social History of Modern India
- (11) एग्नेस ठाकुर – भारत का आर्थिक इतिहास (1757–1950)
- (12) पुरी, दास, चोपड़ा – भारत का सामाजिक आर्थिक एवं सांस्कृतिक इतिहास
- (13) अरूण भट्टाचार्य – हिस्ट्री आफ मॉडर्न इंडिया (1757–1947)
- (14) नीलकंठ शास्त्री – एडवांस हिस्ट्री ऑफ इंडिया
- (15) आर.सी. मजुमदार – ऐन एडवांस हिस्ट्री ऑफ इंडिया
एवं एच.सी. राय
- (16) कौलेश्वर राय – आधुनिक भारत 1757–195
- (17) सीमा पाल – भारतीय संस्कृति एवं ब्रिटिश उपनिवेशवाद
- (18) यशपाल एवं ग्रोवर – आधुनिक भारत का इतिहास
- (19) शेखर बंदोपाध्याय – प्लासी से विभाजन तक
- (20) दीलीप मेनन – आधुनिक भारत का इतिहास
- (21) दीलीप मेनन – कल्चरल हिस्ट्री ऑफ मॉडर्न इंडिया
- (22) ए.पी.सिंह – भारत में उपनिवेश
- (23) घनश्याम शाह – भारत में सामाजिक आंदोलन

- (24) किशोर अग्रवाल – बीसवीं शताब्दी का छत्तीसगढ़
- (25) अशोक शुक्ला – छत्तीसगढ़ का राजनीतिक इतिहास
- (26) भगवान सिंह वर्मा – छत्तीसगढ़ का इतिहास
- (27) सुरेश चंद्र – छत्तीसगढ़ का समग्र इतिहास
- (28) हीरालाल शुक्ल – छत्तीसगढ़ का जनजातीय इतिहास
- (29) आभा पाल एवं
डिश्यर नाथ खुटे – बस्तर का राजनीतिक, सामाजिक एवं आर्थिक इतिहास

बी.ए. तृतीय वर्ष, इतिहास
प्रश्न पत्र –द्वितीय
भारत के राष्ट्रीय आन्दोलन का इतिहास 1857 ई. से 1947 ई. तक

इकाई 1

1. राष्ट्रवाद का उदय
2. 1857ई. की क्रांति : कारण एवं परिणाम
3. भारतीय राष्ट्रीय कांग्रेस की स्थापना – उद्देश्य, उदारवाद, उग्रवाद
4. बंगाल का विभाजन एवं स्वदेशी आंदोलन

इकाई 2.

5. क्रांतिकारी आंदोलन– प्रथम एवं द्वितीय चरण
6. भारतीय राजनीति में साम्प्रदायिकता का उदय– मुस्लिम लीग की स्थापना
7. होमरूल आंदोलन
8. लखनऊ समझौता

इकाई 3.

9. गांधीवादी आंदोलन – असहयोग आंदोलन
10. सविनय अवज्ञा आंदोलन
11. आदिवासी मजदूर एवं कृषक आंदोलन
12. भारत छोड़ो आंदोलन

इकाई 4.

13. आजाद हिन्द फौज
14. भारत का विभाजन एवं स्वतंत्रता
15. रियासतों का विलिनीकरण
16. भारतीय संविधान की प्रमुख विशेषताएं

इकाई 5.

17. छत्तीसगढ़ में 1857ई. की क्रांति– नारायण सिंह एवं हनुमान सिंह
18. बस्तर का मुरिया विद्रोह एवं भूमकाल आंदोलन
19. छत्तीसगढ़ में गांधीवादी आंदोलन
20. छत्तीसगढ़ में रियासतों का विलिनीकरण

संदर्भ ग्रन्थ सूची:-

- (1) ताराचंद – भारतीय स्वाधीनता आंदोलन का इतिहास भाग 1 व 2
- (2) सुमित सरकार – आधुनिक भारत
- (3) पं.सुंदरलाल शर्मा – भारत में अंग्रेजी राज
- (4) डॉ. आभा सक्सेना – इंडियन नेशनल मूवमेंट एंड द लिबरलस
- (5) ए.आर. देसाई – भारतीय राष्ट्रवाद की सामाजिक पृष्ठभूमि
- (6) शर्मा एवं शर्मा – भारतीय राष्ट्रीय आंदोलन एवं राजनैतिक विकास
- (7) कौलेश्वर राय – फ्रीडम स्ट्रगल
- (8) विपिन चन्द्र – भारतीय स्वतंत्रता संग्राम का इतिहास
- (9) बीरकेश्वर प्रसाद सिंह – भारतीय राष्ट्रीय आंदोलन एवं संवैधानिक विकास
- (10) रामलखन शुक्ला – आधुनिक भारत का इतिहास
- (11) विनोद कुमार सक्सेना – द पार्टीशन ऑफ बंगाल
- (12) के.पी. बहादुर – हिस्ट्री ऑफ फ्रीडम मूवमेंट इन इंडिया
- (13) योगेन्द्र श्रीवास्तव – हिस्ट्री ऑफ फ्रीडम मूवमेंट 1857-1947
- (14) यशपाल एवं ग्रोवर – आधुनिक भारत का इतिहास
- (15) कौलेश्वर राय – आधुनिक भारत 1757-1950
- (16) दामोदर धर्मानंद कौसंबी – भारतीय इतिहास का अध्ययन
- (17) उषा ठक्कर एवं जयश्री मेहता – गांधी बोध
- (18) माधुरी बोस – बोस बंधु और भारतीय स्वतंत्रता
- (19) अजय गुडावर्ठी – भारत में राजनीतिक आंदोलनों का समकालीन इतिहास
- (20) एम.आजाद – आजादी का कहानी
- (21) ए.पी. सिंह – भारत में राष्ट्रवाद
- (22) सुमीत सरकार – मॉडर्न टाइम्स

- (23) रजनी कोठारी – पोलिटिक्स इन इंडिया
- (24) एम.के. गांधी – हिन्द स्वराज
- (25) किशोर अग्रवाल – बीसवीं शताब्दी का छत्तीसगढ़
- (26) अरविंद शर्मा – छत्तीसगढ़ का इतिहास
- (27) अशोक शुक्ला – छत्तीसगढ़ का राजनीतिक इतिहास
- (28) भगवान सिंह वर्मा – छत्तीसगढ़ का इतिहास
- (29) सुरेश चंद्र – छत्तीसगढ़ का समग्र इतिहास
- (30) सुरेश चंद्र शुक्ला,
एवं अर्चना शुक्ला – छत्तीसगढ़ की रियासतों का विलीनीकरण
- (31.) आभा पाल एवं
डिश्वर नाथ खुटे – बस्तर का राजनीतिक, सामाजिक एवं आर्थिक इतिहास

REVISED SYLLBUS

B. A. Part- III (Economics)

Subject : Development and Environmental Economics, Paper-I (Paper Code:0242)

UNIT 1

Economic Growth and Development: Factor affecting economic growth (Labour, capital and technology), Developed and under developed Economy, Poverty-absolute & relative, Marxian model of Economic Growth, Mahalanobis Model of Economic Growth. Balanced and unbalanced growth.

UNIT 2

Problems of Population and growth pattern of population. Theory of demographic transition. Population, poverty and environment. Schumpeter's theory of economic growth, Theory of Big-Push, Nelson's theory of low-level income equilibrium trap , Theory of Critical minimum efforts ,

UNIT 3

Harrod and Domar growth model, Solow's model of economic growth, Meades Neo classical models, , Mrs. Joan Robinson's growth model , A. Lewis theory of unlimited supply of labour.

UNIT 4

Environment: Environmental and use, environmental disruption as an allocation, problem. valuation of environmental damages- land, water , air & forest , prevention control and abatement of pollution, choice of policy instruments in developing countries, environmental legislation, indicators of sustainable development, environmental accounting

UNIT 5

Concept of Intellectual Capital : Food Security, Education, Health & Nutrition, Role of agriculture in economic development, Land reforms, Efficiency & Productivity in Agriculture, new technology & Sustainable agriculture, Globalization & agriculture growth, the choice of technique appropriate technology & employment.

Reference :-

1. Behrman, S. And T.N. Shrinivasan (1995) “Hand book of Development Economics,” Vol 1, 2, & 3 Elsevier; Amsterdam.
2. Ghatak,s (1986) “An introduction to development Economics”, Allen & Elnein, London.
3. Sen, A.K. (Ed.) 1990 “Growth Economics”, Penguin, Harmonds worth.
4. Mehrotra, S. And J. Richard (1998), Development with a Human Face, Oxford University Press new Delhi.

REVISED SYLLBUS

B.A. Part- III (Economics)

Subject : Statistical Methods, Paper-II, (Paper Code: 0243)

UNIT 1 :-

Statistics : Definition of Statistics, Importance and Limitations of Statistics, Importance of Statistics in Economics, Statistical investigation, Census and sampling methods of statistical investigation, Statistical data, Collections of Data, Primary & Secondary Data.

UNIT 2

Measuring of Central Tendency: Mean, Median, Mode, measures of Skewness, Probability-basic concepts meaning and definitions

UNIT 3

Dispersion : Meaning of Dispersion, Methods of measuring Dispersion, Range, Quartiles Deviation ,Mean Deviation, Coefficient of Mean Deviation, Standard Deviation.

UNIT 4

Correlation Analysis : Meaning and types of correlation ,Degree of correlation, Coefficient of correlation-Karl Pearson's Method, Spearman's Rank Difference Method. Probable error and standard error.

UNIT 5

Index Number- Methods of constructing of Index Numbers, Fisher's methods, Dorbish-Bowles method, Paasches method, Laspeyres method, Consumer price index numbers, Reversal test, Circular Test, Time series analysis-Meaning, Components of time series, Measurement of long term trend by average method.

Reference :-

1. Shukla, S.M. and S.P. Sahay – "Quantitative Methods" Sahitya Bhawan Publication, Agra.
2. Agrawal, D.R., "Quantitative Methods", Vrinda Publications (P) Ltd.
3. Sancheti, D.C., " Quantitative Methods", Sultanchand and Sons, New Delhi.

4. Gupta, S.P. and others, "Qunatitative Techniques", Sultanchad and Sons, New Delhi.
5. मेहता एवं मदनानी, अर्थशास्त्र में प्रारंभिक गणित, लक्ष्मीनारायण अग्रवाल, आगरा-3
6. Dr. Amrendra, "An Introduction to Mathematical concepts in Economics", Pragtisheel Prakashan, New Delhi.

==*==

संशोधित पाठ्यक्रम
बी. ए. भाग- 3
हिन्दी साहित्य
प्रथम प्रश्न पत्र
जनपदीय भाषा- साहित्य (छत्तीसगढ़ी)
(पेपर कोड- 0233)

प्रस्तावना-

हिन्दी केवल खड़ी बोली नहीं है, बल्कि एक बहुत बड़ा भाषिक समूह है। हिन्दी जगत में अनेक विभाषाएँ, बोलियाँ और उपबोलियाँ विद्यमान हैं जिनमें सकल साहित्य सम्पदा है। इनके सम्यक अध्ययन और अन्वेषण की आवश्यकता है। जनपदीय भाषा छत्तीसगढ़ी निरन्तर विकास की ओर अग्रसर हो रही है अस्तु, इस भाषा का और इसमें रचित साहित्य का इतिहास- विकास स्पष्ट करते हुए इनसे संबंधित प्रमुख रचनाकारों का आलोचनात्मक अनुशीलन करना हिन्दी के वृहत्तर हित में होगा। छत्तीसगढ़ी भाषा का पाठ्यक्रम निम्न बिन्दुओं पर आधारित हैं-

- (क) छत्तीसगढ़ी भाषा का इतिहास- विकास
- (ख) छत्तीसगढ़ी भाषा में रचित साहित्य का इतिहास
- (ग) छत्तीसगढ़ी भाषा के प्रमुख प्राचीन एवं अर्वाचीन रचनाकारों की कृतियों का अध्ययन।

पाठ्य विषय-

रचनाएँ-

- (1) प्राचीन कवि संत धर्मदास के 3 पद
 1. गुरु पड़या लागों नाम लखा दीजो हो।
 2. नैना आगे ख्याल घनेरा।
 3. भजन करौ भाई रे, अइसन तन पाय के।
(सन्दर्भ- धर्मदास के शब्दावली से उद्धृत)
- (2) लखनलाल गुप्त का गद्य-
 1. सोनपान
(गद्य- पुस्तक 'सोनपान' के उद्धृत)
- (3) अर्वाचीन रचनाकार
डॉ. सत्यभामा आडिल रचित गद्य
 1. सीख सीख के गोठ
(गद्य पुस्तक 'गोठ' के उद्धृत)
- (4) डॉ. विनय पाठक की कविताएँ-
 1. तँय उठथस सुरुज उथे
 2. एक किसिम के नियाव
('अकादसी और अनचिन्हार' पुस्तक से उद्धृत)
- (5) मुकुन्द कौशल- छत्तीसगढ़ी गजल
"छै बित्ता के मनखे देखों..... से- मछरी मन लाख लेथे" तक

(पुस्तक ' छत्तीसगढ़ी गजल' के पृष्ठ 17 से उद्धृत)

द्रुतपाठ के रचनाकार— (व्यक्तित्व एवं कृतित्व)

1. सुन्दर लाल शर्मा
2. कपिलनाथ कश्यप
3. रामचन्द्र देशमुख (रंगकर्मी)

अंक विभाजन— व्याख्याएं (3)	— 21 अंक
आलोचनात्मक प्रश्न (2)	— 24 अंक
लघुउत्तरीय प्रश्न (5)	— 15 अंक
वस्तुनिष्ठ (15)	— 15 अंक
कूल अंक	75

इकाई विभाजन

इकाई एक	— व्याख्या
इकाई दो	— प्राचीन एवं अर्वाचीन रचनाकार
इकाई तीन	— (अ) छत्तीसगढ़ी भाषा का इतिहास (ब) छत्तीसगढ़ी साहित्य का इतिहास
इकाई चार	— द्रुत पाठ के तीन रचनाकार
इकाई पाँच	— वस्तुनिष्ठ / (सम्पूर्ण पाठ्यक्रम से)

संशोधित पाठ्यक्रम
बी.ए. भाग- 3
द्वितीय प्रश्न पत्र
हिन्दी भाषा- साहित्य का इतिहास तथा काव्यांग विवेचन
(पेपर कोड- 0234)

प्रस्तावना-

हिन्दी भाषा का इतिहास जितना प्राचीन है, उतना ही गुढ़- गहन भी। इसमें रचित साहित्य ने लगभग डेढ़ हजार वर्षों का इतिहास पूरा कर लिया है इसलिए हिन्दी भाषा और साहित्य के ऐतिहासिक विवेचन की बड़ी आवश्यकता है। इसी के साथ- साथ हिन्दी ने अपना जो स्वतंत्र साहित्य शास्त्र निर्मित किया है, उसे भी रूपायित करने की आवश्यकता है। इसके संज्ञान द्वारा विद्यार्थी की मर्मग्राहिणी प्रतिभा का विकास होगा और ऐतिहासिक परिप्रेक्ष्य में शुद्ध साहित्यिक विवेक का सन्निवेश होगा।

पाठ्य विषय-

(क) हिन्दी भाषा का स्वरूप विकास- हिन्दी की उत्पत्ति, हिन्दी की मूल आकर भाषाएँ तथा विभिन्न विभाषाओं का विकास। हिन्दी भाषा के विभिन्न रूप-

1. बोलचाल की भाषा
2. रचनात्मक भाषा
3. राष्ट्रभाषा
4. राजभाषा
5. सम्पर्क भाषा
6. संचार भाषा

हिन्दी का शब्द भण्डार- तत्सम, तद्भव, देशज, आगत शब्दावली।

(ख) हिन्दी साहित्य का इतिहास :- आदिकाल, पूर्व मध्यकाल, उत्तर मध्यकाल और आधुनिक काल की सामाजिक, सांस्कृतिक पृष्ठभूमि, प्रमुख युग प्रवृत्तियाँ, विशिष्ट रचनाकार और उनकी प्रतिनिधि कृतियाँ, साहित्यिक विशेषताएँ।

(ग) काव्यांग

प्रमुख 5 छंद	- काव्य का स्वरूप एवं प्रयोजन। रस के विभिन्न भेद, विभिन्न अंग, विभावादि तथा उदाहरण।
शब्दालंकार	- दोहा, सोरठा, चौपाई, कुण्डलियाँ, सवैया।
अर्थालंकार	- अनुप्रास, यमक, श्लेष, वक्रोक्ति, पुररुक्ति प्रकाश। उपमा, रूपक, उत्प्रेक्षा, अतिशयोक्ति, भ्रांतिमान।

संदर्भ ग्रन्थ-

- (1) हिन्दी साहित्य का इतिहास संपादक- डॉ. सुशील त्रिवेदी व बाबूलाल शुक्ल (प्रकाशक- म. प्र. उ. शि. अनुदान आयोग)

- (2) राजभाषा हिन्दी— मलिक मोहम्मद (प्रभात प्रकाशन दिल्ली)
(3) हिन्दी भाषा— डॉ. भोलानाथ तिवारी।

अंक विभाजन—

आलोचनात्मक (4)	— 44 अंक
लघुउत्तरीय प्रश्न (4)	— 16 अंक
वस्तुनिष्ठ प्रश्न (15)	— 15 अंक
<hr/>	
कुल अंक— 75 अंक	

इकाई विभाजन—

- इकाई— 1 हिन्दी भाषा का स्वरूप— विकास— (खण्ड— 'क')
इकाई— 2 हिन्दी का शब्द भण्डार— (खण्ड 'क' का अंतिम भाग)
इकाई— 3 हिन्दी साहित्य का इतिहास— (खण्ड— ख)
इकाई— 4 काव्यांग— रस, छंद, अंलकार (भाग— ग)
इकाई— 5 लघुउत्तरीय एवं वस्तुनिष्ठ प्रश्न (सम्पूर्ण पाठ्यक्रम से)

नवीन संशोधित पाठ्यक्रम

दर्शन शास्त्र

बी.ए. भाग तीन दर्शन शास्त्र विषय में कुल दो प्रश्न पत्र होंगे तथा प्रत्येक में 75 अंक होंगे। प्रत्येक प्रश्न पत्र पांच इकाईयों में विभाजित है। प्रथम प्रश्न पत्र 'तर्कशास्त्र' अनिवार्य है। द्वितीय प्रश्न पत्र में दो विकल्प दिये गये हैं –

1. ज्ञान मीमांसा एवं तत्व मीमांसा (भारतीय एवं पाश्चात्य)
2. ग्रीक दर्शन

बी.ए. भाग – तीन

दर्शन शास्त्र

प्रश्न पत्र– प्रथम

तर्क शास्त्र

(कुल 75 अंक)

- इकाई –1
1. तर्क शास्त्र : अर्थ, परिभाषा, स्वरूप, उपयोगिता
 2. आगमनात्मक एवं निगमनात्मक तर्क
 3. अनाकारिक तर्कदोष
- इकाई–2
1. सत्यता एवं वैधता
 2. प्रतिज्ञप्ति – वर्गीकरण, प्रतिज्ञप्ति की बुलीय व्याख्या
 3. निरपेक्ष न्याय वाक्यों के मानक आकार एवं न्याय वाक्यों के परीक्षण हेतु वेन रेखा पद्धति
 4. आकारिक तर्कदोष
- इकाई–3
1. (अ) संयोजन (ब) निषेधक (स) वियोजक (द) आपादन (इ) द्विआपादन
 2. तार्किक युक्तियों की वैधता की परीक्षा के लिए सत्यता सारिणी विधि
- इकाई –4
1. विज्ञान एवं प्राक्कल्पना
 2. वैज्ञानिक व्याख्या की प्रकृति
 3. वैज्ञानिक व्याख्या एवं अवैज्ञानिक व्याख्या में भेद
 4. मिल की पद्धतियां (अन्वय, व्यतिरेक, अन्वय व्यतिरेक की संयुक्त पद्धति)
- इकाई–5
1. अनुमान
 2. अनुमान के प्रकार
 3. हेत्वाभास

उपरोक्त समस्त संशोधन विषय की स्पष्टता व ज्ञानवर्धन को ध्यान में रखकर समिति के सभी सदस्यों की सहमति से किया गया।

नवीन संशोधित पाठ्यक्रम
बी.ए. भाग –तीन

दर्शन शास्त्र

प्रश्न पत्र— द्वितीय (वैकल्पिक)

(अ) ज्ञान मीमांसा एवं तत्व मीमांसा (भारतीय एवं पाश्चात्य)

- इकाई –1 1. ज्ञान मीमांसा एवं तत्व मीमांसा : स्वरूप एवं विषय वस्तु
ज्ञान प्रमाण : प्रमा एवं अप्रमा
- इकाई –2 1. प्रामाण्य : स्वतः प्रामाण्य एवं परतः प्रामाण्य
ख्यातिवाद : सत्ख्यातिवाद, अख्यातिवाद, अन्यथा ख्यातिवाद ,
अनिवर्चनीय ख्यातिवाद
- इकाई—3 1. कारणता का सिद्धांत (कारणकार्यवाद)
अ. सत्कार्यवाद
ब. असत्कार्यवाद
2. सत्य के सिद्धांत
अ. संवादिता
ब. संसक्तता
स. अर्थक्रियावादी सिद्धांत
- इकाई—4 1. जड़वाद
2. अध्यात्मवाद
3. वस्तुवाद
- इकाई—5 1. बुद्धिवाद
2. अनुभववाद
3. कांट का परीक्षावाद

उपरोक्त समस्त संशोधन विषय की स्पष्टता व ज्ञानवर्धन को ध्यान में रखकर समिति के सभी सदस्यों की सहमति से किया गया ।

नवीन संशोधित पाठ्यक्रम

बी.ए. भाग –तीन

दर्शन शास्त्र

प्रश्न पत्र— द्वितीय (वैकल्पिक)

ग्रीक दर्शन

इकाई –1 1. ग्रीक दर्शन : मुख्य विशेषताएं

2. थेलिस

3. एनेक्जिमेंडर

4. एनेक्जिमेनीज

इकाई—2 1. हेराक्लाइट्स

2. जेनोफेनीज

3. पार्मेनाइडीज

4. जीनो

इकाई—3 1. एम्पीडोकलीज

2. एनेक्जागोरस

3. ल्यूसिपस

4. डेमोक्राइट्स

इकाई—4 1. सोफिस्ट विचारक : प्रोटागोरस, गार्जियस

2. सुकरात – सुकरात पद्धति, नैतिक विचार

इकाई –5 1. प्लेटो— प्रत्ययवाद, आत्मा

2. अरस्तू – प्लेटो के प्रत्ययवाद की आलोचना, कारणता सिद्धांत

उपरोक्त समस्त संशोधन विषय की स्पष्टता व ज्ञानवर्धन को ध्यान में रखकर समिति के सभी सदस्यों की सहमति से किया गया ।

Paper I : International Politics and Foreign Policy of India

- इकाई 1 : अन्तर्राष्ट्रीय राजनीति : अर्थ, प्रकृति, क्षेत्र ।
अन्तर्राष्ट्रीय राजनीति : अध्ययन उपागम – यथार्थवाद, आदर्शवाद, नवयथार्थवाद, विश्व व्यवस्था सिद्धान्त । राष्ट्रीय हित एवं राष्ट्रीय शक्ति : अर्थ, परिभाषा एवं तत्व ।
- Unit 1 :** International Politics : meaning, Nature, Scope. International Politics : Approaches to the study : Realism, Idealism, New realism, World System theory. National interest and National power: Meaning Definition and Elements.
- इकाई 2 : अन्तर्राष्ट्रीय राजनीति के विभिन्न सिद्धान्त : व्यवस्था, खेल, निर्णय निर्माण,सौदेबाजी का सिद्धान्त । शक्ति संतुलन । सामूहिक सुरक्षा । निशस्त्रीकरण । शीतयुद्ध । राजनय ।
- Unit 2 :** Various theories of International Politics : System, Game, Decision making, Bargaining theory. Balance of Power, Collective Security, Disarmament, Cold war, Diplomacy.
- इकाई 3 : भारत की विदेश नीति : निर्धारक तत्व, विशेषताएं । गुटनिरपेक्षता : अर्थ, विशेषताएं, प्रासंगिकता ।
- Unit 3 :** Foreign Policy of India : Determinating elements, characteristics. Non-alignment : meaning, features , relevance.
- इकाई 4 : भारत का पड़ोसियों से सम्बंध –चीन,पाकिस्तान,नेपाल,श्रीलंका । भारत का महाशक्तियों से सम्बंध – संयुक्त राज्य अमेरिका, रुस, ब्रिटेन एवं फ्रांस
- Unit 4 :** Indias' relations with neighboring countries : China , Pakistan, Nepal, Sri lanka, Relations with Super Powers - USA, Russia, Britain and France.
- इकाई 5 : अन्तर्राष्ट्रीय राजनीति के कुछ प्रमुख मुद्दे : पर्यावरणवाद । अन्तर्राष्ट्रीय आतंकवाद । वैश्वीकरण । मानव अधिकार । परमाणविक निशस्त्रीकरण ।
- Unit 5 :** Some major issues of International Politics : Environmentalism, International Terrorism, Globalisation, Human Rights , Nuclear Disarmament.

बी.ए.अंतिम वर्ष
प्रथम प्रश्न पत्र
अंतर्राष्ट्रीय राजनीति एवं भारत की विदेश नीति

सन्दर्भ ग्रन्थ सूची:-

क्र	पुस्तक का नाम	लेखक का नाम
1.	अन्तर्राष्ट्रीय राजनीति के सैद्धान्तिक पक्ष	महेन्द्र कुमार
2.	अन्तर्राष्ट्रीय राजनीति के सिद्धान्त एवं व्यवहार	यू.आर.घई
3.	अन्तर्राष्ट्रीय राजनीति सिद्धान्त समकालिन एवं मुद्दे	बी.एल. फाडिया
4.	अन्तर्राष्ट्रीय संबंध	पुष्पे पन्थ
5.	अन्तर्राष्ट्रीय संबंध	दीनानाथ बर्मा
6.	थीयरी ऑफ इन्टरनेशनल पालिटिक्स	के.वाल्डज
7.	इन्टरनेशनल रिलेणन्स	जे.गोल्ड स्टीन
8.	द इन्टरनेशनल पालिटिक्स	पी.कलवरट
9.	इन्टरनेशनल रिलेणन्स	सी.ब्राउन
10.	समकालीन विष्व एवं भारत	अरुणोदय बाजपेयी

Reference :-

- M.S. Agwani, **Détente: Perspectives and Repercussions**, Vikas, 1975
- John Gray, **False Dawn: The Delusions of Global Capitalism**, Grant Book, U.K. , 1998
- Hans J. Morgenthau, **Politics Among Nations: The Struggle for Power and Peace**, Scientific Book Agency, Calcutta, 1972
- Mahendra Kumar, **Theoretical Aspects of International Politics**, Agra: Shiva Lal Agarwala & Co. Educational Publishers
- K.J. Holsti, **International Politics: A Framework for Analysis**, Prentice Hall of India, New Delhi, 1995.
- Paul Kennedy, **Preparing for the Twenty-First Century**, New York, 1993
- Hutchings, Kimbley, **International Political Theory**, Sage, New Delhi
- John Baylis and Steve Smith, **The Globalization of World Politics**, Oxford University Press, 2008
- Karen Mingst, **Essentials of International Relations**, New York: W.W. Norton & Company, 2007
- Kate Kelly S. Pease, **International Organizations**, New Jersey: Prentice Hall, 2000

Robert Jackson and Georg Sørensen, **Introduction to International Relations: Theories and Approaches**, Oxford University Press, 2003

- Joshua S. Goldstein & Jon C. Pevehouse, **'International Relations'** 5th Edition, Pearson Education, 2002

- J. W. Burton, '**International Relations: A General Theory**', Cambridge University Press, New York, 1965.
- M.S. Agwani, **Détente: Perspectives and Repercussions**, New Delhi: Vikas, 1975
- John Gray, **False Dawn: The Delusions of Global Capitalism**, Grant Book, U.K., 1998
- Hans J. Morgenthau, **Politics Among Nations: The Struggle for Power and Peace**, Calcutta, Scientific Book Agency, Calcutta, 1972
- Mahendra Kumar, **Theoretical Aspects of International Politics**
- K.J. Holsti, **International Politics: A Framework for Analysis**, Prentice Hall of India, New Delhi, 1995.
- Paul Kennedy, **Preparing for the Twenty-First Century**, New York, 1993
- Hutchings, Kimbley, **International Political Theory**, Sage, New Delhi, 2002
- Karen Mingst, **Essentials of International Relations**, New York: W.W. Norton & Company, 2007
- Kate Kelly S. Pease, **International Organizations**, New Jersey: Prentice Hall, 2000
- Robert Jackson and Georg Sørensen, **Introduction to International Relations: Theories and Approaches**, Oxford University Press, 2003
- Joshua S. Goldstein & Jon C. Pevehouse, '**International Relations**' 5th Edition, Pearson Education, 2002.
- J. W. Burton, '**International Relations: A General Theory**', Cambridge University Press, New York, 1965.
- John Baylis & Steve Smith, '**Globalization of World Politics**' OUP, U.S.A. & Delhi, 2008.

द्वितीय प्रश्नपत्र : लोक प्रशासन Paper : II : Public Administration

- इकाई 1 : लोक प्रशासन : अर्थ, परिभाषा, प्रकृति, क्षेत्र । लोक प्रशासन और निजी प्रशासन । अध्ययन पद्धतियां । नवीन लोक प्रशासन । तुलनात्मक लोक प्रशासन ।
- Unit 1 : Public Administration : meaning and definition, nature, scope. Public Administration and Private Administration. Method of Studies. New Public Administration. Comparative Public Administration.
- इकाई 2 : संगठन के सिद्धान्त : पदसोपान, नियंत्रण का क्षेत्र , आदेश की एकता, प्रत्यायोजन । मुख्य कार्यपालिका । सूत्र एवं स्टाफ अभिकरण । विभागीय संगठन , लोक निगम । कार्मिक प्रशासन : भर्ती, पदोन्नति , प्रशिक्षण ।
- Unit 2 : Principles of Organisation : Hierarchy, Span of Control, Unity of Command, Delegation. Chief Executive. Line and Staff Agencies. Departmental Organisation. Public Corporation. Personnel Administration : Recruitment, Promotion, Training.
- इकाई 3 : विकास प्रशासन : प्रकृति, मुद्दे और विशेषताएं । रिग्स मॉडल । प्रशासन में नागरिक सहभागिता । सुशासन और ई शासन । संघ लोक सेवा आयोग ।
- Unit 3 : Development Administration : Nature, Issues, Characteristics. Riggs Model. Public participation in Administration. Good Governance and e- Governance. Union Public Service Commission.
- इकाई 4 : वित्तीय प्रशासन : बजट के सिद्धान्त । भारत में बजट प्रक्रिया । भारत में प्रशासनिक सुधार । प्रशासन पर कार्यपालिका, विधायी, न्यायिक और जन नियन्त्रण ।
- Unit 4 : Financial Administration: Principles of Budget. Budget procedure in India. Administrative reforms in India. Executive, Legislative, Judicial and Public Control on Administration.
- इकाई 5 : प्रशासन में भ्रष्टाचार : आम्बुड्समैन, लोकपाल और लोक आयुक्त । वैश्वीकरण के युग में लोक प्रशासन । उदारीकरण । नौकरशाही । लोक सम्पर्क । Corruption in Administration: Ombudsman, Lokpal and Lok Ayukta. Public Administration in the age of Globalisation. Liberalisation. Bureaucracy. Public Relation.

बी.ए.अंतिम वर्ष
द्वितीय प्रश्न पत्र
लोक प्रशासन

सन्दर्भ ग्रन्थ सूची:-

क्र	पुस्तक का नाम	लेखक का नाम
1.	लोक प्रशासन	अवस्थी और माहेष्चरी
2.	लोक प्रशासन सिद्धान्त एवं व्यवहार	सूषमा यादव और बलराम गौतम-(सम्पा)
3.	तुलनात्मक लोक प्रशासन	रमेश अरोड़ा
4.	लोक प्रशासन सिद्धान्त एवं व्यवहार	पी.डी. शर्मा और हरीषचन्द्र शर्मा
5.	वित्त प्रशासन	गौतम पद्मनाम
6.	लोक प्रशासन के सिद्धान्त	सी.पी. भामरी
7.	लोक प्रशासन	बी.एल. फाडिया
8.	प्रशासनिक सिद्धान्त	अवस्थी और अवस्थी

Reference :-

- Avasthi & S.R. Maheshwari: **Public Administration**, (Agra: L. N. Agrawal, latest Hindi and English editions)
- R. R. Jha: **Lokayukta : The Indian Ombudsman**, Rishi Publications, Varanasi, 1991
- F.A. Nigro and G.I. Nigro, **Modern Public Administration**, New York, Harper Row, 1980
- M. P. Sharma, B. L. Sadana, '**Lok Prashasan : Siddhanth Evam Vyavahar**',(Allahabad: Kitab Mahal, Latest Hindi and English editions) .
- R. K. Arora & R. Goyal: **Indian Public Administration**, (New Delhi: Vishwa Prakashan, 2008).
- S. Kataria, '**Personnel Administration**', (RBSA Publishers, Jaipur, 2003).

सत्र 2020-21 से प्रस्तावित

बी.ए. अन्तिम वर्ष

संस्कृत साहित्य

टीप – बी.ए. अन्तिम वर्ष में संस्कृत साहित्य के दो प्रश्न-पत्र होंगे एवं दोनों प्रश्न-पत्र 75- 75 अंकों के होंगे ।

प्रथम प्रश्नपत्र

नाटक, व्याकरण और अनुवाद

पूर्णांक – 75

- इकाई –1 अभिज्ञानशाकुन्तलम् (नाटक) अंक – 15
दो श्लोकों की व्याख्या
(प्रथम, चतुर्थ, पंचम तथा सप्तम अंक से व्याख्या, शेष द्रुतपाठ)
- इकाई –2 अभिज्ञानशाकुन्तलम् – समीक्षात्मक प्रश्न अंक – 15
- इकाई –3 निर्धारित छन्दों के लक्षण तथा उदाहरण – अंक – 15
अनुष्टुप्, इन्द्रवज्रा, उपेन्द्रवज्रा, उपजाति, वंशस्थ, आर्या, मालिनी, शिखरिणी, वसन्ततिलका, शार्दूलविक्रीडित, स्रग्धरा, मन्दाक्रान्ता ।
- इकाई –4 व्याकरण – लघुसिद्धान्तकौमुदी अंक – 15
कृदन्त प्रकरण
तव्यत् , अनीयर् , यत् , क्यप् , प्यत् , शतृ , शानच् , क्त्वा, ल्यप् , तुमुन् , क्त , क्तवतु , ण्वुल् , तृच् , ल्युट् , अण् ।
- इकाई –5 व्याकरण – लघुसिद्धान्तकौमुदी अंक – 15
1.तद्धितप्रत्यय –
अण् , ढक् , ष्यञ् , त्व, तल् , इमनिच् , ठक् , इञ् , मतुप्
इनि, इतच् , ईयसुन् , इष्ठन् , तरप् , तमप् , ण्य, यञ् ।
2.स्त्रीप्रत्यय –
टाप् , डीप् , डीष् , डीन् ।

अनुशासित ग्रन्थ –

1. अभिज्ञानशाकुन्तलम् – कालिदास, प्रकाशक – मोतीलाल बनारसीदास, वाराणसी
2. छन्दोमंजरी – प्रकाशक – चौखम्बा विद्याभवन, वाराणसी
3. लघु सिद्धान्त कौमुदी – श्रीधरानन्द शास्त्री
4. लघु सिद्धान्त कौमुदी – श्री महेश सिंह कुशवाहा, प्रकाशक – चौखम्बा विद्याभवन, वाराणसी
5. शीघ्रबोधव्याकरणम् – डा. पुष्पा दीक्षित, पाणिनीय शोध संस्थान, तेलीपारा, बिलासपुर
6. संस्कृत हिन्दी कोश – वामन शिवराम आप्टे, प्रकाशक – मोतीलाल बनारसीदास,

सत्र 2020-21 से प्रस्तावित
बी.ए. अन्तिम वर्ष
संस्कृत
द्वितीय प्रश्नपत्र
नाटक, व्याकरण और अनुवाद

पूर्णांक – 75

- इकाई –1 किरातार्जुनीयम् (भारवि) प्रथमसर्ग अंक – 15
दो श्लोकों की ससन्दर्भ व्याख्या
- इकाई –2 किरातार्जुनीयम् – आलोचनात्मक प्रश्न अंक – 15
- इकाई –3 मूलरामायणम् –वाल्मीकि अंक – 15
व्याख्या अथवा आलोचनात्मक प्रश्न
- इकाई –4 अलंकार – अंक – 15
अनुप्रास, यमक, शब्दश्लेष, उपमा, रूपक, उत्प्रेक्षा, अनन्वय,
अर्थान्तरन्यास, स्वभावोक्ति, अतिशयोक्ति, दीपक, विभावना, विशेषोक्ति,
अपह्नुति, दृष्टान्त, निदर्शना, प्रतिवस्तूपमा, सन्देह, भ्रान्तिमान् , काव्यलिंग ।
- टिप्पणी – अलंकारों के लक्षण चन्द्रालोक, काव्यप्रकाश अथवा साहित्यदर्पण
से अध्येतव्य हैं, उदाहरण पाठ्यक्रमों से भी दिये जा सकते हैं ।
- इकाई –5 निबन्ध (संस्कृत भाषा में) 15 वाक्यों में अंक – 15
टिप्पणी – निबन्ध समीक्षात्मक अथवा विश्लेषणात्मक न होकर वर्णनात्मक
पूछे जायेंगे ।

अनुशासित ग्रन्थ –

1. संस्कृतनिबन्धशतकम् – डा. कपिलदेव द्विवेदी, चौखम्बा प्रकाशन, वाराणसी
2. निबन्धपारिजात – डा. रजनीकान्त लहरी, चौखम्बा प्रकाशन, वाराणसी
3. प्रबन्धरत्नाकर – डा. रमेशचन्द्र शुक्ल, चौखम्बा प्रकाशन, वाराणसी
4. रचनानुवादकौमुदी – डा. कपिलदेव द्विवेदी, चौखम्बा प्रकाशन, वाराणसी

केन्द्रीय अध्ययन मंडल
समाजशास्त्र

Revised syllabus
SOCIOLOGY 2018-2019

B.A. PART-III

PAPER – I

FOUNDATIONS OF SOCIOLOGICAL THOUGHT

(Paper Code-0246)

- UNIT-I **August Comte** : The Law of Three Stages , Positivism, Hierarchy of Science.
Durkheim: Social Solidarity and Suicide.
- UNIT-II **Karl Marx** : Dialectic Materialism , Class Struggle and Surplus value.
Max Weber : Bureaucracy, Authority and the Protestant Ethic and the spirit of Capitalism.
- UNIT-III **Pareto** : Circulation of Elites and Logical and Nonlogical action.
Spencer : Social Darwinism, super organic evolutions.
- UNIT-IV **Thorstein Veblen**: The Theory of Leisure Class, Theory of Social Change.
R. K. Morton: Functionalism and Reference Group.
- UNIT-V **Development of Sociological thought in India** : -
Mahatma Gandhi: Ahimsa, Satya Graha and Trusteeship.
Radha kamal Mukherjee : The Concept of Value.

ESSENTIAL READINGS –

- 1 Barres,H.E. : Introduction to the sociology, Chicago the university of Chicago press 1959.
- 2 Coser,Levis a.,: Master of sociological thought, New York Harcourt Brace Jovanovich 1979.
- 3 Singh, Yogendra- Indian sociology:social conditioning and emerging trends. New Delhi vistaar 1986.
- 4 Zeitlin,Irving-(Indian edition) Rethinking sociology: A critique of contemporary theory , Jorpur Rawl 1999.

2447
11.06.18

Angi Begum
Shabha sh
11/06/2018

11.06.18

11/6/18

11.06.2018

Head,
S.O.S. in Sociology & Social Work,
Pt. Ravishankar Shukla University,
Raipur. (C.G.)

Revised syllabus
SOCIOLOGY 2018-2019

B.A. PART-III
PAPER-II
METHODS OF SOCIAL RESEARCH
(Paper Code-0247)

- UNIT-I **Social Research** : Meaning, Characteristics and Significance.
Scientific methods , Hypothesis.
- UNIT-II **Qualitative Research** : Ethnography, Observation, Case Study, Content analysis.
- UNIT-III **Research design** : Exploatory , Descriptive, Explanatory, Experimental, and Diagnostic.
- UNIT-IV **Tools and Techniques of Social Research**: Social Survey, Sampling, Questionnaire, Interview - Schedule and Interview - Guide.
- UNIT-V **Social Statistics**: Meaning, Importance and Limitations.
Graphs, Diagrams and Measures of Central Tendency- Mean, Mode, Median, Correlation, Use of Computer in Social Research.

ESSENTIAL READINGS –

1. Young, P.V. (1977). *Scientific Social Surveys and Research*. Prentice Hall of India. New Delhi.
2. Bruce, C., & Margaret, M. (1993). *Approaches to Social Research*. New York: Oxford University Press.
3. Cohen, M., & Nagel, E. (1944). *An Introduction to Logic and Scientific Method*. New York: Harcourt, Brace & Company.
4. Forcese, D., & Richer, S. (1973). *Social Research Methods*. Cliffs: Englewood, Cliffs, NJ. Printinh Hall.
5. Moser, C.A. (1962). *Survey Methods in Social Research Investigation*. London: Heinemann, Printce Hall.
6. Goode, & Hatt. (1952). *Methods in Social Research*. New York: MC'grawHill Publishers.

[Signature]
11.6.18

[Signature]
Shubhash
11/06/2018

[Signature]
11.06.18

[Signature]
11.06.2018

[Signature]
11/6/2018

Head,
S.O.S. in Sociology & Social Work,
Pt. Ravishankar Shukla University,
Raipur. (C.G.)

[Signature]

[Signature]
11.6.18

[Signature]
11/6/18

B. A. - III
PSYCHOLOGY

Paper	Name of the Paper	Max. Marks	Duration
I	Psychological Statistics	50	3 hrs.
II.	Human Development/ or Environmental Psychology	50	3 hrs.
III.	Practicum	50	4 Hrs.

PAPER - I

PSYCHOLOGICAL STATISTICS (Paper Code-0250) M.M.: 50

Note: This paper consists of five units. From each unit a minimum of two questions would be set and the candidates would be required to attempt one from the each unit.

UNIT-1 Statistics: Meaning and Application in Psychology; Nature of Score, Categorical and Continuous variables; Frequency Distribution; Graphic representation of data.

UNIT-2 Measures of Central Tendency: Mean, Median and Mode of grouped and ungrouped data, Measures of Variability: Range, Standard Deviation (S.D.), Quartile Deviation (Q.D.), Average Deviation (A.D.). Applications of the measures of Central Tendency and Variability.

UNIT-3 Nature and Characteristics of Normal Probability Curve (NPC): The concept of Skewness and Kurtosis; Correlation: Concept, Types and Methods- Rank Difference and Product Moment (in ungrouped data).

UNIT-4 Inferential Statistics: Concept of Null Hypothesis; Level of Significance; Type-I Error & Type-II Error, t-test (for uncorrelated data).

UNIT-5 Distribution-Free Statistics: Chi-square test, Median and Sign test. Applications of Computer in Psychological Statistics.

References

1. Siegel, S. (1994). Non Parametric Statistics. New York: Mcgraw Hill.
2. Garret. Statistics in Psychology and Education. Times of India Publisher.
3. dfiy, ,p- d-A llkf[;dh d ey rRoA
4. xjVA eukfoKku ,o f'k{kk e llkf[;dhA



B. A. - III

PSYCHOLOGY

PAPER- II (Optional)

(A) HUMAN DEVELOPMENT (Paper Code-0251)

M.M.:50

Note: This paper consists of five units. From each unit a minimum of two questions would be set and the candidates would be required to attempt one from the each unit.

UNIT-I The Concept of Human Development; Theories of Human Development: Psycho-analytical and Maslow's (Humanistic); Determinants of Human Development: Biological, Social, and Cultural; Approaches to study Human Development: Longitudinal and Cross-sectional.

UNIT-II Socialization: Role of Family, Peers and School; Media and Socialization; Cognitive Development: Theoretical Perspectives- Piaget's, Information Processing, Vygotsky's.

UNIT-III Self and Identity: Emergence of Self; Development of Personal Identity; Identity Crises; Physical and Sexual Development; Sequential Development of Emotions.

UNIT-IV Development of Morality and Self-control; Development of Gender Differences and Gender Roles; Role of Marriage, Family and Occupation in Human Development.

UNIT-V Problems of Aging: Cognitive, Conative, and Affective; Developmental Disabilities.

References

1. Berk L.E. (1989) Child Development. Boston: Allyn and Bacon.
2. Santrock, J.W. (1999). Lifespan Development. New York: McGraw-Hill.
3. Hurlock, E.B. (1997). Developmental Psychology: A Life-span Approach.
4. 'kkgj xko/kuA fodk kRed eukfoKkuA



B. A. - III

PSYCHOLOGY

PAPER- II (Optional)

(B) ENVIRONMENTAL PSYCHOLOGY (Paper Code-0252)

M.M.:50

Note: This paper consists of five units. From each unit a minimum of two questions would be set and the candidates would be required to attempt one from the each unit.

UNIT-1 Evaluating Environmental Ethics from Values about nature in the ancient Indian systems; Earth as a Living System; Psychological Approaches to the Environment: Eco Cultural Psychology (Berry), Bio-social Psychology (Dawson), Ecological Psychology (Berkar), and Person Environment Transactions (Sokols, Itelison etc.)

UNIT-2 Effects of Environment on Behavior: Noise Pollution, Chemical Pollution, Crowding and Personal Space; Effect of Behavior on Environment: Perception, Preferences and Awareness of Environment.

UNIT-3 Human Nature and Environmental Problems; Pro-social and pro environment Behaviors; Eco-systems and their components; Demography: Mortality and Fertility; Resource Use: Common Property Resources; Sustainable Development; Ecology: Acculturation and Psychological Adaptation.

UNIT-4 Methods: Naturalistic Observation and Field Surveys; Environmental Assessment: Naturalistic Observation and Field Surveys; Socio-psychological Dimensions of Environments Impact; Environmental Deprivation: Nature and Consequences; Creating Environmental Awareness: Social Movements: Chipko, Tehri, and Narmada Bachao.

UNIT-5 Applications of Psychology in Man Environment Fit: Education- Classroom Environment, Industry- Industrial/ Organisational Effectiveness, Health- Physical, Mental and Spiritual, Social- Communal harmony and National integration.

References

1. Goldsmith, E. (1991). *The Way: The Ecological World*. Boston: Shambhala.
2. Jain, U. (1987). *The Psychological Consequences of Crowding*. New Delhi: Sage.
3. Mishra, R.C., Sinha, D & Berry, J.W. (1996). *Ecology, Community and Life style*. New Delhi.



B. A. - III
PSYCHOLOGY
PAPER- III
PRACTICUM

M.M.:50

Note: This paper consists of two parts:

Part-A

- (a) Comprises of Laboratory **Experiments**.
(b) Comprises of Psychological **Testing** and understanding of self and others.
(a) **Experiments** (Any five of the following):-

1. Bilateral Transfer of Training.
2. Measurement of Illusion.
3. Habit Interference.
4. Effect of Need priority on Selection of advertising material.
5. Effect of Mental Fatigue on Performance.
6. Reaction Time.
7. Effect of Frustration on Learning.
8. Depth Perception.

- (b) **Psychological Tests** (Any four of the following):-

1. Level of Aspiration.
2. Need for Guidance.
3. Maturity Scale.
4. Attitude Scale.
5. Classroom Environment Scale.
6. Mental Health.
7. Family Environment Test
8. Test of Moral Values.

Part- B

The candidate will be allotted a topic of the project by the departmental committee. He/she is required to carry out a small scale project based on a small sample. He/she is required to complete the project and submit its report in 15-20 pages, covering all the major steps of scientific enquiry under the supervision of a departmental teacher. This will be the part of practical work. The suggested areas for the project work are as under Mental Health, Sibling Rivalry, Deprivation, Identity Crises, Drug Abuse, Aging, Media effect, Woman Employment, Job Satisfaction, Stress, Stress Management, and Problems of Adolescents etc.

Distribution of Marks

Conduction of Experiment	-	10 marks
Administration of test	-	10 marks
Evaluation of Project Report and Practical record	-	10 marks
Viva - Voce	-	10 marks



PART - II

ENGLISH LANGUAGE

M.M. 75

(Paper Code-0232)

The question paper for B.A./B.Sc./B.Com./B.H.Sc. III Foundation course, English Language and General Answers shall comprise the following items :

Five question to be attempted, each carrying 3 marks.

UNIT-I	Essay type answer in about 200 words. 5 essay type question to be asked three to be attempted.	15
UNIT-II	Essay writing	10
UNIT-III	Precis writing	10
UNIT-IV	(a) Reading comprehension of an unseen passage	05
	(b) Vocabulary based on text	10
UNIT-V	Grammar Advanced Exercises	25

Note : Question on unit I and IV (b) shall be asked from the prescribed text. Which will comprise of popular create writing and the following items. Minimum needs housing and transport Geo-economic profile of M.P. communication Educate and culture. Women and Worm in Empowerment Development, management of change, physical quality of life. War and human survival, the question of human social value survival, the question of human social value, new Economic Philosophy Recent Diberaliation Method) Demoration docontralisation (with reference to 73, 74 constitutional Amendment.

Books Prescribed :

Aspects of English Language And Development - Published by M.P. Hindi Granth Academy, Bhopal.

ENGLISH LITERATURE

PAPER - I

INDIAN WRITING IN ENGLISH

M.M. : 75

(Paper Code-0235)

All questions are compulsory.

- Note :
1. Unit - I is compulsory. Two passages from each of the units II to V to be set and three to be attempted. (3x5 = 15)
 2. Short answer questions from unit VII, seven to be set and five to be attempted. (5x2 = 10)
 3. Long-answer questions from unit II to VI. Five questions from each unit with internal choice to be set. (5x10 = 50)

UNIT-I Annotations and short answer questions.

UNIT-II Poetry -

Toru Dutt	-	'Our Casurina Tree'
Tagore	-	Songs 1 & 103 from 'Gitanjali'
Sarojini Naidu	-	'The Ecstasy', 'The Lotus'

UNIT-III Kamla Das - 'The old playhouse'

Gauri Deshpandey	Or	'The female of the species'
Jayant Mahapatra	-	'Dawn at Puri'
K.N. Daruwala	Or	'Death by Burial'
Shiv K. Kumar	-	'Indian Women'

UNIT-IV Prose -

Nirad C. Choudhary	-	My Birth Place.
Dr. S. Radhakrishnan	-	The call of the suffering.

UNIT-V Drama -

Girish Karnad	-	Hayavadana
	Or	
Tendulkar	-	Silence ! The Court is in session.

UNIT-VI Fiction -

R.K. Narayan	-	Guide
--------------	---	-------

UNIT-VII 1. Lyric, 2. Subjective poetry, 3. Couplet, 4. Fable, 5. Hymn, 6. Allegory, 7. Autobiography,

BOOK RECOMMENDED :

1. Indian Poetry in English, Ed. Hari Mohan Prasad, Sterling Publication.
2. An Introduction to the study of English Literature, B. Prasad.
3. A Glossary of Literary Terms - M.H. Abrams.
4. Prose of To day - M.C. Millan.

PAPER - II

(A) AMERICAN LITERATURE

(Paper Code-0236)

All questions are compulsory.

- Note :
1. Unit-I is compulsory. Two passages from each of the units II to V to be set and three to be attempted. (3x5 = 15)

- 2 Short answer questions from unit VII, seven to be set and five to be attempted. (5x2 = 10)
- 3 Long-answer questions from unit II to VI. (word limit for each answer is 300-400 words) internal choice to be set. (5x10 = 50)

UNIT-I Annotations and short answer question.

UNIT-II Poetry -

Wait whitman - O Captain ! My Captain, when the Lilacs Last in the Dooryard Bloomed.

Carl Sandberg - 'Who Am I ?', 'I am the People, The Mob'

UNIT-III Emily Dickinson - 'Hope is the thing with Feather' I Felt a funeral in My Brain'

E.E. Cummings - 'The Cambridge Ladies'
'As Freedom is a Breakfast food'

UNIT-IV Prose -

William Faulkner - Nobel Award Acceptence Speech

W. Carlos Williams - In the American Grain

Walt Whitman - Preface to "Leaves of Grass"

UNIT-V Drama -

Miller - All My Sons

Or

Eugene O'Neill - The Hairy Ape

UNIT-VI Fiction -

E. Hemingway - A Farewell to Arms

Or

W. Faulkner - The Sound and the Fury

UNIT-VII 1. Naturalism, 2. Realism, 3. Art for Art's sake, 4. Poetic-Drama, 5. Symbolism, 6. American Renaissance, 7. Existentialism.

BOOK RECOMMENDED :

- 1 American Literature, An Anthology, Ed. Fr. Egbert S. Oliver.
- 2 A Glossary of Literary Terms - M.H. Abrams.

PAPER - II

(B) 20TH CENTURY LITERATURE IN ENGLISH

(Paper Code-0237)

The paper will be taught as an optional paper to Paper-II(A) which is a paper on American Literature. The Principle focus will be to probe the students a general background and cultural history of this period and also to make them aware of the Literary trends of the twentieth century. The Paper will comprise six units and in all six quetions are to be attempted, one from each unit.

UNIT-I The following historical and literary topics will be included in this unit. Students are required to write short notes of not more than three hundred words on any two of the following topics. (10 Marks)

i The Two world wars.

ii The Russian Revolution.

- iii) The Great Depression.
- iv) The Vietnam war.
- v) Freudian Thought
- vi) Existentialism.
- vii) Absurdism.
- viii) Modernism and Post Modernism.
- ix) New Development in fiction and Drama.

UNIT-II Ten objective type questions on the life History and major poetical works of the following poets of the twentieth century will be asked in this unit. (10 Marks)

- i) W.B. Yeats (1865-1939)
- ii) Siegfried Sasson (1886-1967)
- iii) Rupert Brooke (1887-1915)
- iv) T.S. Eliot (1888-1965)
- v) Wilfred Owen (1893-1918)
- vi) W.H. Auden (1907-1937)
- vii) Louis Macneice (1907-1963)
- viii) Stephen Spender (1909-)
- ix) Dylan Thomas (1914-1953)
- x) Philip Larkin (1922-1985)

UNIT-III (15 marks)

T.S. Eliot - 'The Waste Land'

Or

Wilfred Owen - 'Disabled'
 Siegfried Sassoon - 'Attack', 'Falling Asleep'
 Rupert Brooke - 'The Hill'
 W.H. Auden - 'Miss Gee'

UNIT-IV (15 marks)

Joseph Conrad - 'Heart of Darkness'

Or

Chinua Achebe - 'Things Fall Apart'

UNIT-V (Non Fictional Prose) (10 marks)

Virginia Woolf - 'The Death of the Moth'
 Graham Greene - 'The Lost Childhood'

UNIT-VI (Drama) (15 marks)

Bernard Shaw - 'Pygmalion'

Or

Samuel Beckett - 'Waiting for Godot'

MUSIC

PAPER - I

THEORY OF INDIAN MUSIC, VOCAL/INSTRUMENTAL M.M. :50

(Paper Code-0264)

- I Definitions and Elementary Knowledge of the following terms : Shruti, Gram, Murchana, Jaati, Sadaj-Pancham Bhav, Sadaj-Madhyam Bhav, Sada-jantar Bhav, Chatuh Sarana by acharya Bharat, Praman Shruti, Kaku Bhed, Jhala, Razakhani gat, Maseetkhani gat, Toda.
- II Introduction of Harmony and Melody Characteristics and comparative study of Harmony and Melody.
- III Methods of Placement of swars :
 - (a) Method of placing shudha and Vilkrit Swaras on Veena by Ahobal, Pt. Srinivas and Pt. V.N. Bhatkhande.
 - (b) Shruti Swar system of different granthakars (authors) Ancient, Medieval and Modern period.
- IV. Evolution and Development of Swar Saptaka of western and Indian scales :
 - (a) Phthogorian Scale.
 - (b) Scale from Sadaj-Pancham Bhav,
 - (c) Scale from Sadaj-Madhyam Bhav,
 - (d) Equally tempered Scale
 - (e) Diatonic Scale
 - (f) Mean tempered Scale
 - (g) Concept of Acharya Bharat and Bilawal Thata.
 - (h) Chromatic Scale.
- V. Definition and prime elements of Gharana and their history.
Gwalior, Agra, Kirana, Patiyala, Jaipur, Senia Gharana of Instrumental Music.
- VI. Difinition of Gram and Gram Bhed -
Sadaj Gram, Madhyam Gram, Gandhar Gram and their Swaras.
- VII. Writing of Talas in Natation with Dugun and Chaugun layakarais in all the Talas prescribed in Ist and IInd Year.

PAPER - II

THEORY OF MUSIC, VOCAL/INSTRUMENTAL M.M. :50

(Paper Code-0265)

1. Study of Theoretical details of Ragas prescribed for practical course and their comparative study.
2. Writing in notation of Bandish / Gat of prescribed Ragas.
3. Biographics and contributions of the musicians : Haddu - Hassu khan, Inayat Kan, Pandit Omkar Nath Thakur, Matang, Ramamatya, Srinivas, Lochan, Hrideya Narayan Dev, Sonmath, Bhav Bhatta.
4. History of Indian Music : Medieval and Modern period; Analytical study of the styles, position and effects of granthkaras and eminent musician of medieval and modern Period.
5. Classical Music and Folk Music : Comparative study of Classical and Folk music.
Intensive study of the Folks of Chhattisgarh.

6. Voice-Culture : Definition, Importance and utility of voice-culture. Construction of throat and production of sound. General scientific methods of voice-culture.
7. Guided listening to Radio and T.V. national Programmes of Indian classical Music and ability to write their critical appreciation.
8. Essay on topics related to music.

**PRACTICAL
VOCAL/ INSTRUMENTAL**

- I Study of Eight Ragas from the following :
Ramlali, Jaijaiwanti, Miyan ki Malhar, Pooriya, Basant, Bahar, Darbavi Kanhada, Miyan ki Todi, Adana, Kalavati, Hansdhwani, Shuddhkalyan, Pooriyadhamashri, Marwa.
1. Two Vilambit Khayalas / Maseetkhani Gats in any of the above mentioned Ragas with Alap and Tanas / Todas.
One Vilambit Khayalas / Maseethkhani / Gat choice Raga and one asked by the examiner.
(5+5 = 10 marks)
3. Lakshan Geets, Sargams, Madhayalaya Khyals / Razakhani Gats with Tanas / Todas in all the eight Ragas. (5+5 = 10 marks)
4. Study of One Dhrupad and one dhamar with Dwigun, Trigun Chaugun / study of Two Madhayata gats in other than Trital out of the Ragas prescribed in the course. 8 marks
5. Study of one Tarana, One Bhajan / One Dhun. 4 marks
6. Ability to demonstrate (orally by given Tali Khali on hand) Talas prescribed in 1st year and IIInd year Matta Tala, Panjabi Trital, Ganesh Tal, Rudra Tala. 4 marks

SESSIONAL WORK

1. Keeping upto date practical and theory note Books. Attendance and activities in the class and college.
2. Ten descriptions of Music programmes of Radio, T.V. or personally attended.

BOOK RECOMMENDED :

1. Kramik pustak Malika Part I, II, III, IV by Pt. V.N. Bhatkhande.
2. Sangeetanjali Part I, II, III, IV, V, VI by Pt. Onkarnath Thakur.
3. Raga Vigyan Part I, II, III, IV, V by Pt. V.N. Patvardhan.
4. Rag Bodh. B.R. Devdhar, Part I, II & III.
5. Sitar Vadan, S.G. Vyas.
6. Sangeet Visharad, Vasant
7. Sangeet Bodh - S.C. Paranjape
8. Sangeet Darshika - Navigopal Banerjee
9. Sangeet Shastra Darpan - Shanti Gowardhan Part I, II & III
10. Dawadhavi and Sangeet - Lalit Kishore singh
11. Shrimallakshay Sangeetam - Chatur Pandit.

- - - - -

HOME SCIENCE

Paper - I

"HUMAN DEVELOPMENT"

(Paper Code-0253)

- UNIT-I**
- 1 Development-meaning of child growth and development. Defferent aspects of gowth, principles of development, factors affecting child development, heredity and environment.
 - 2 Stages of development -
 - 1 Physiology of pregnancy
 - 2 Prenatal
 - (a) Reproductive system
 - (b) Prenatal development
 - 3 Infancy
 - (a) Early infancy
 - (b) Babyhood
 - 4 Childhood
 - (a) Early childhood
 - (b) Late childhood
 - 5 Adolescence
 - (a) Early adolescence
 - (b) Late adolescence
 - (ii) Prenatal growth and development -
 - (a) Sources of studing prenatal life
 - (b) Stages of growth prenatal and development
 - (c) Factors affecting prenatal and development growth
 - (1) Mother's food
 - (2) Health of mother
 - (3) Narcotics
 - (4) Age of parents
 - (5) Effect of season
 - (6) Emotion of mother
- UNIT-2**
- 1 Effect of normal and scissoring delivery.
 - 2 Adjustment to new environment -
 - (a) Temperature
 - (b) Respiration
 - (c) Food consumption
 - (d) Excretion
 - 3 Physical development of infant-
 - (a) Physical proportion
 - (b) Height
 - (c) Weight
 - (d) Pulse rate
 - (e) Respiration rate
 - (f) Body temperature
 - (g) Frequency of hunger.
 - 4 Sensory development of infant
 - (a) Light

- (b) Sound
- (c) Taste
- (d) Smell
- (e) Skin sensitivity
- 5 Motor activity of infants -
 - (a) Mass activities
 - (b) Specific activities -
 - (i) Reflex activities
 - (ii) Advantages of reflex action
- 6 Emotions of infants -
 - (a) Types of emotions
 - (b) Significance of emotions
- 7 Characteristics of infant behaviour -
 - (a) Dependency
 - (b) Individual difference
 - (c) Adjustment

UNIT-3 Childhood : Adolescence.

- 1 Characteristics of this stage.
- 2 Factors affecting growth and development during childhood and adolescence.
- 3 Physical growth height, weight, body proportion, teeth
- 4 Growth and development of internal organs (a) Nervous (b) Mental (c) Circulatory system (d) Digestive system, (e) Respiratory system (f) Tissues and muscles systems.
- 5 Development of motor abilities (i) Types of motor abilities (ii) importance and characteristics of motor abilities in childhood (iii) Development of motor skills, Types of motor skills (iv) Delayed motor development.

UNIT-4

- 6 Development of emotional behaviour-characteristics special emotions (affection, anger, fear, jealousy and worries) factors affecting emotional behaviour.
- 7 Social developments stages - (a) during infancy, (b) nursery school period (c) elementary school period (d) Factor affecting social development.
- 8 Development of intelligence - Types according to thronyke, theories regarding intelligence.

UNIT-5

- 9 Play meaning of play, work and play, theories of play, characteristics of children's play, types of play, factors effecting play and importance of play.
- 10. Habits :
 - 1 Definition.
 - 2 Functions performed by habits.
 - 3 Habits and learning
 - 4 Laws of habit formation-identical to laws of learning.
 - 5 Habit formation.
 - (a) Principles of habit formation.
 - (b) Rules for habit formation.
- 11. Children delinquency-Types causes and remedial measures.

निसाब उर्दू अदब
पहला पर्चा
'नस्र' (पेपर कोड-0262)
(दास्तान, ड्रामा, अफसाना)

नं. 75

निसाब :

दास्तान :	1. किस्सा आजाद बख्त	इन्तेखाब बागोबहार मीर अमान ।
	2. मुलात मलकए महन निगार	इन्तेखाब फसनए अजाइब रजब अली बेग शुरु ।
ड्रामा	1. डाक्टर तयकीन की उलझन	अज इब्राहीम युसुफ
	2. आगरा बाजार	अज हवीब तनवीर
अफसाना	1. कफन	प्रेमचंद
	2. नया कानून	सजादत हुसैन मन्टी
	3. यूकिलिप्टस की हाली	कृष्ण चन्द्र
	4. लाजवंती	राजेन्द्र सिंह वैदी
	5. दो भीगे हुए लोग	इकबाल मजीद
	6. झूठा संच/काठ का घोड़ा	रतन सिंह
	7. दीमक	गयास अहमद गद्दी
	8. अफसाना	जीलानी बानो

इकाईयाँ :

इकाई-1	शामिले निसाब असनाप पर सवालात	नं. 15
इकाई-2	दास्तान निगारों पर सवालात	नं. 15
इकाई-3	ड्रामा निगारों पर सवालात	नं. 15
इकाई-4	अफसाना निगारों पर सवालात और अफसानों का खुलासा और जायजा	नं. 15
इकाई-5	दास्तान और अफसानों से तशरीह	नं. 15

दूसरा पर्चा (शायरी) (पेपर कोड-0263)
(कसायूद, मरासी और मजमून निगारी)

नं. 75

निसाब :-

कसायूद :	1. फज्र होते जो गई आज मेरी आँख झपकअज सौदा देहलबी	
	2. सावन में दिया फिर महे शव्वाल दिखाईअज जौक देहलबी	
	3. समते काशी से जानिबे मथुरा बादल अज मोहसिन काकोरवी	
मरासी :	1. किस शेर की आमद है के रन कॉफ रहा हैअज दबीर	(15 बंद)
	2. ब खुदा फारसे मैदाने तहवुर या हुर अज अनील	(15 बंद)

मजमून निगारी : किसी अदबी मोजू पर मजमून

इकाईया :

इकाई-1	शामिले निसाब असनाफ पर सवालात	नं. 15
इकाई-2	कसोदा निगारों पर सवालात	नं. 15
इकाई-3	मर्तिया निगारों पर तन्कीदी सवालात	नं. 15
इकाई-4	तशरीहजशारे कसायूद और मरासी	नं. 20
इकाई-5	अदबी मोजू पर मजमून	नं. 10



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-I

**Structure & Syllabi for 3 Year Degree Programme of
Bachelor of Computer Applications (B.C.A.)**

1. The title of the programme is Bachelor of Computer Application (B.C.A.) and introduced from the academic year 2014-15.
2. **Objectives:** The objectives of the Programme shall be to provide sound academic base from which an advanced career in Computer Application can be developed. Conceptual grounding in computer usage as well as its practical software application will be provided.
3. **Eligibility for admission :** In order to be eligible for admission to Bachelor of Computer Applications a candidate must have passed
 - a. HSC (10+2) from any stream with English as passing Subject with minimum 40% marks in aggregate.
 - b. Three years Diploma Course of Board of Technical Education, conducted by Government of CG or its equivalent.
 - c. Three Year Diploma Course (after S.S.C. i.e. 10th Standard), of Board of Technical Education conducted by Government of CG or its equivalent.
4. **Duration:** The duration of the B.C.A. Degree Program shall be three years.
5. **The scheme of Examinations:** The BCA Examination will be of 2400 marks as given Below:
 - I) Basic and Compulsory papers: 550 marks
 - II) For Theory Papers and Practical Papers: 1850 marks
6. **The Standard of Passing and Award of Class**

In order to pass in the examination the candidate has to obtain 33% marks out of 100. (Min 33% marks must be obtained in theoretical papers as well as practical papers of University Examination).

The class will be awarded on the basis of aggregate marks obtained by the candidate for all three years examinations.
7. **RULES OF Promotion**

As per section 14 of promotion rule.
8. The Medium of Instruction and Examination (Written and Viva) shall be English/Hindi.
9. **Instructions to Paper Setters:**
 - a. In each theory paper, six questions are to be set and paper has maximum 100 marks. Question paper should be in English as well as Hindi.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-I

- b. Question No. 1 should be compulsory and cover the entire syllabus. This question should have objective or short answer type questions. It should be of 25 marks.
- c. Apart from Question No. 1, rest of the paper shall consist of five units as per the syllabus. Every unit should have two questions. However, student may be asked to attempt only 1 question from each unit. Each question should be 15 marks.
10. The Year wise Structure & plan of the programme shall be as follows :

SCHEME OF EXAMINATION BCA PART-I

Paper no.	Title of Paper/s	Maximum Marks		Maximum Marks	Minimum Passing Marks
		Theory	Practical		
1.	आधार पाठ्यक्रम-हिन्दी भाषा	75	--	75	26
2.	Foundation Course- English Language	75	--	75	26
3.	Environmental Studies & Human Rights (Additional & Compulsory)	75	25	100	33
4.	Discrete Mathematics	100	--	100	33
5.	Computer Fundamental and Concepts of Software	100	--	100	33
6.	PC Software Packages and Programming in C	100	--	100	33
7.	Data Structure	100	--	100	33
8.	Lab-1 Software Packages Lab	--	75	75	25
9.	Lab-2 Programming lab in C	--	75	75	25
	Total Marks	650	150	800	



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-I

SCHEME OF EXAMINATION BCA PART-II

Paper no.	Title of Paper/s	Maximum Marks		Maximum Marks	Minimum Passing Marks
		Theory	Practical		
1.	आधार पाठ्यक्रम-हिन्दी भाषा	75	--	75	26
2.	Foundation Course- English Language	75	--	75	26
3.	Operating System	100	--	100	33
4.	Digital Electronics and Microprocessor	100	--	100	33
5.	Computer Networks and Cyber Technology	100	--	100	33
6.	Object Oriented Programming Using C++	100	--	100	33
7.	Computer Graphics and Multimedia	100	--	100	33
8.	Lab-1 Programming Lab Using C++	--	75	75	25
9.	Lab- 2 Multimedia Lab	--	75	75	25
Total Marks		650	150	800	

SCHEME OF EXAMINATION BCA PART-III

Paper no.	Title of Paper/s	Maximum Marks		Maximum Marks	Minimum Passing Marks
		Theory	Practical		
1.	आधार पाठ्यक्रम-हिन्दी भाषा	75	--	75	26
2.	Foundation Course- English Language	75	--	75	26
3.	Computer Organization and Architecture	100	--	100	33
4.	Software Engineering	100	--	100	33
5.	Database Design and RDBMS (Oracle)	100	--	100	33
6.	Web Technology	100	--	100	33
7.	Numerical Analysis	100	--	100	33
8.	Lab-1 RDBMS & Web Technology	--	75	75	25
9.	Lab-2 Minor Project	--	75	75	25
Total Marks		650	150	800	
Grand Total Marks of BCA- I, II & III				2400	



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-I

आधार पाठ्यक्रम
प्रश्न पत्र—प्रथम
हिन्दी भाषा

पूर्णांक – 75

नोट :

1. प्रश्न पत्र 75 अंक का होगा।
2. प्रश्न पत्र अनिवार्य होगा।
3. इसके अंक श्रेणी निर्धारण के लिए जोड़े जावेंगे।
4. प्रत्येक इकाई के अंक समान होंगे।

पाठ्य विषय –

- इकाई-1 पल्लवन, पत्राचार तथा अनुवाद एवं पारिभाषिक शब्दावली।
इकाई-2 मुहावरे – लोकोक्तियाँ, शब्दशुद्धि, वाक्य शुद्धि, शब्द ज्ञान – पर्यावाची, विलोम, अनेकार्थी, समश्रुत (समानोचरित) अनेक शब्दों के लिए एक शब्द।
इकाई-3 देवनागरी लिपि की विशेषता, देवनागरी लिपि एवं वर्तनी का मानक रूप।
इकाई-4 कम्प्यूटर में हिन्दी का अनुप्रयोग, हिन्दी में पदनाम।
इकाई-5 हिन्दी अपठित, संक्षेपण, हिन्दी में संक्षिप्तीकरण।

पाठ्य क्रम के लिए पुस्तकें –

1. भारतीयता के स्वर साधन धनंजय वर्मा – म. प्र. ग्रंथ अकादमी।
2. नागरी लिपि और हिन्दी – अनंत चौधरी – ग्रंथ अकादमी पटना।
3. कम्प्यूटर और हिन्दी – हरिमोहन – तक्षशिला प्रकाशन, दिल्ली।



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-I

FOUNDATION COURSE
PAPER – II
ENGLISH LANGUAGE

M.M 75

UNIT -1

Basic Language skills: Grammar and Usage.

Grammar and Vocabulary based on the prescribed text. To be assessed by objective / multiple choice tests.

(Grammar – 20 Marks
Vocabulary – 15 Marks)

UNIT -2

Comprehension of an unseen passage.

05

This should simply not only (a) an understanding of the passage in question, but also (b) a grasp of general language skills and issues with reference to words and usage within the passage and (c) the Power of short independent composition based on themes and issues raised in the passage.

To be assessed by both objective multiple choice and short answer type tests.

UNIT – 3

Composition: Paragraph writing

10

UNIT – 4

Letter writing

10

Two letters to be attempted of 5 marks each. One formal and one informal.

UNIT - 5

Texts:

15

Short prose pieces (Fiction and not fiction) short poems' the pieces should cover a range of authors, subjects and contexts' With poetry if may sometimes be advisable to include pieces from earlier periods, which are often simpler than modern examples In all cases, the language should be accessible (with a minimum of explanation and reference to standard dictionaries) to the general body of students schooled in the medium of an Indian language.

Students should be able to grasp the contents of such place; explain specific words, phrases and allusions; and comment on general points of narrative or argument Formal Principles of Literary criticism should not be taken up at this stage. To be assessed by live short answers of three marks each.

BOOKS PRESCRIBED –

English Language and Indian Culture – Published by M.P. Hindi Granth Academy Bhopal.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-I

BCA PART- I/II/III
ENVIRONMENTAL STUDIES & HUMAN RIGHTS
(Additional & Compulsory)
SYLLABUS FOR "ENVIRONMENTAL STUDIES" FOR UNDER GRADUATE

M.M. 75

UNIT- I

THE MULTI DISCIPLINARY NATURE OF ENVIRONMENTAL STUDIES:

Definition, scope and importance

Need for public awareness.

Natural Resources:

Renewable and non-renewable resources:

Natural resources and associated problems.

- (a) Forest resources: Use and over-exploitation, deforestation, case studies, Timber extraction, mining, dams and their effects on forests and tribal people.
 - (b) Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dam's benefits and problems.
 - (c) Mineral resources: Use and exploitation, Environmental effects of extracting and using mineral resources case studies.
 - (d) Food resources: World food problems, changes caused by agriculture a Dover grazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.
 - (e) Energy resources: Growing energy needs, renewable and non renewable energy sources, use of alternate energy sources. Case studies.
 - (f) Land resources: Land as resources, land degradation, man induced landslides, soil erosion and desertification.
- Role of an individual in conservation of natural resources.
 - Equitable use of resources tor sustainable life-styles.

UNIT- II

ECOSYSTEMS

Concept of ecosystems.

Structure and function of an ecosystem.

- Producers, consumers and decomposers.
- Energy flow in the ecosystem.
- Ecological succession.
- Food chains, food webs and ecological pyramids.
- Introduction, types, characteristic features, structure and function of the following ecosystem:
 - a. Forest ecosystem
 - b. Grassland ecosystem
 - c. Desert ecosystem
 - d. Aquatic ecosystems (Ponds, streams, lakes, rivers, oceans, estuaries)



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-I

UNIT-III

Biodiversity and its Conservation

- Introduction - Definition: genetic, species and ecosystem diversity.
- Bio geographical classification of India.
- Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic and option values.
- Biodiversity at global, National and local levels.
- India as mega - diversity nation.
- Hot-spots of biodiversity
- Threats to biodiversity: habitat loss, poaching of wildlife, man wild if conflicts.
- Endangered and endemic species of India.
- Conservation of biodiversity: In situ and Ex-situ conservation of biodiversity

UNIT-IV

Environmental Pollution

Definition

Causes, effects and control measures of -

- a. Air Pollution
 - b. Water Pollution
 - c. Soil pollution
 - d. Marine pollution
 - e. Noise pollution
 - g. Nuclear hazards.
- Solid waste management: Causes, effects and control measures of urban and industrial wastes.
 - Role of an individual in prevention of pollution.
 - Pollution case studies
 - Disaster management: floods, earthquake, cyclone and landslides.

Human population and the Environment

- Population growth, variation among nations,
- Population explosion – Family Welfare programme.
- Environment and human health.
- Human Rights.

UNIT-V

Social issues and the Environment

- From Unsustainable to Sustainable development.
- Urban problems related to energy.
- Water conservation. Rain water harvesting, watershed management.
- Resettlement and rehabilitation of people, its problems and concerns. Case studies.
- Environmental ethics: Issues and possible solutions.
- Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case studies.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-I

- Wasteland reclamation.
- Consumerism and waste products.
- Environment protection Act.
- Air (Prevention and Control of Pollution) Act.
- Water (Prevention and Control of Pollution) Act.
- Wildlife Protection Act.
- Forest Conservation Act.
- Issues involved in enforcement of environmental legislation.
- Public awareness.
- Value Education.
- HIV/AIDS
- Women and Child Welfare.
- Role of Information Technology in Environment and Human Health.
- Case Studies.

FIELD WORK

- Visit to a local area to document environmental assets- river/forest/ grassland/hill/mountain.
- Visit to local polluted site: Urban/Rural/Industrial/Agriculture.
- Study of common plants, insects, birds.
- Study of simple ecosystems-pond, river, hill slopes' etc' (Field work Equal to 5 lecture hours)

REFERENCES:

1. K.C 2001 Environmental Biology, Nidi Publ. Ltd Bikaner.
2. Bharucha Erach, the Biodiversity of India, Mapin Publishing Pvt. Ltd. Ahmedabad 380 013, India. Email : mapin@icenet net(R)
3. Bruinner R.C., 1989, Hazardous Waste Incineration, Mc Graw Hill Inc, 480p.
4. Clark R.S., Marine Pollution, Clanderson Press oxford (TB).
5. Cuningham, W.P. Cooper, T.H. Gorhani, E & Hepworth, M.T. 200.
6. Dr. A.K. Environmental chemistry, Wiley Estern Ltd.
7. Down to Earth, Centre for science and Environment (R)
8. Gloick, H.P. 1993 Water in crisis, Pacific Institute for studies in Deve, Environment & Security. stockholm Eng. Institute, oxford Univ, Press 473p.
9. Hawkins B.E., Encyclopedia of Indian Natural History, Bombay Natural History Society, Mumbai (R)
10. Heywood, V.H. & Watson, R.T. 1995 Global Biodiversity assessment, Cabridge Univ. Press 1140p.
11. Jadhav H. & Bhosale, V.H. 1995, Environmental Protection and Laws, Himalaya Pub. House. Delhi 284p.
12. Mckinney M.L. & School R.M. 1996, Environmental Science systems & Solution Pub. Web enhanced edition, 639p.
13. Mhaskar A.K., Matter Hazardous, Techno-Science Publication (TB).



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-I

14. Miller T.G. Jr., Environmental Science, Wadsworth Publishing Co. (TB).
15. Odum, E.P. 1971, Fundamentals of Ecology, W.B. Saunders Co. USA, 574p.
16. Rao M. N. & Datta, A.K. 1987, Waste Water treatment. Oxford & IBH Publ. Co. Pvt. Ltd. 345p.
17. Sharma B.K., 2001, Environmental Chemistry, Goel Publ. House, Meerut.
18. Survey of the Environment, The Hidu (M).
19. Townsend C., Harper J., and Michael Begon, Essentials of Ecology, Blackwell Science (TB).
20. Trivedi R.K. Handbook of Environmental Laws, Rules, Guidelines, Compliances and Standards, Vol. I and II, Environment Media (R).
21. Trivedi R.K., and P.K. Goel, Introduction to air pollution, Techno – Science Publications (TB).
22. Wagner K.D., 1998, Environmental Management, W.B. Saunders Co. Philadelphia, USA 499p.
23. Magazine
24. Reference
25. Textbook.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-I

PAPER-III
DISCRETE MATHEMATICS

Unit – I

Recall of statements and logical connectives, tautologies and contradictions, logical equivalence, algebra of propositions quantifiers, existential quantifiers and universal quantifiers.

Unit –II

Boolean algebra and its properties, algebra of propositions as an example, De Morgan's Laws, partial order relations g.l.b., l.u.b. Algebra of electric circuits and its applications. Design of simple automatic control system.

Unit –III

Boolean functions - disjunctive and conjugative normal forms. Boolean's expansion theorem, fundamental forms. Many terminal Networks.

Unit –IV

Arbitrary Cartesian product of sets. Equivalence relations, partition of sets, injective, subjective, objective maps, binary operations, countable, uncountable sets.

Unit – V

Basic Concept of Graph Theory, Sub graphs, Trees and their properties, Binary Trees, Spanning Trees, Directed Trees, Planar graphs, Euler Circuit, Hamiltonian Graph. Chromatic number.

Text Books:

1. Boolean algebra and Its Applications, J. Eldon Whitesitt, Addison-Wesley.
2. A Textbook of Discrete Mathematics, Swapan Kumar Sarkar, S. Chand.
3. Discrete Math with Proof, Eric Gossett, Pearson.
4. Discrete Math Workbook: Interactive Exercises, James R Bush, Pearson.

Reference Books:

1. Discrete Mathematics, Prof. H K Pathak, Shiksha Sahitya Prakashan.
2. Discrete Maths, C.L.Liu, T McGraw Hill.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-I

PAPER-IV

COMPUTER FUNDAMENTAL AND CONCEPTS OF SOFTWARE

Unit – I

Basics of Computer

What is Computer?, Introduction to Computing, History of Computers, Application and Issues of Computer, Components of Computer: Input Devices, Output Devices, System Unit, Storage Devices, Communication Devices; Computer Building Blocks: CPU, Hardware Devices: External Connectivity, Video Port, USB Port, all other Ports.

Unit – II

Processing Unit

Processor Building Blocks: Control Unit, Arithmetic Logic Unit, Register Unit, Comparison of Personal Computer Processors, Processor for Mini, Mainframe, Large and Super Computers, Examples of Various Processor and their families, Category of Processor on basis of Word length, Working of Processor and Execution Process, Machine Cycle, System Clock.

Unit – III

Memory and I/O Devices

Types of Memory: RAM, Cache, ROM, Flash Memory, CMOS, Cloud Storage, Optical Discs: CDs, DVDs. Memory Hierarchy, Input Devices: Keyboard, Mouse, Trackball, Touchpad, Pointing Stick, and others; Output Devices: LCD & Plasma Monitors, other Monitors, Printers: Nonimpact, Ink-Jet, Photo, Laser Printers, Plotters, Speakers, Headphones, and Ear-buds, Data Projectors, Interactive Whiteboards.

Unit – IV

Category of Software with example and brief features

Introduction to Software (s/w), Types of s/w: Application Software & System Software, Various Application Software s/w and their examples, System Programming and System Programs, Needs of System Software, BIOS, POST sequence, Concept & introduction to various system s/w such as: Assemblers, Loaders, linkers, macro processors, Macros, Compilers, Interpreters, Operating system and formula system, Translators and its types, Editor, Simulator, Emulator, Debugger, Device Drivers, Firmware etc. Assemblers: Structure of assembler, Overview of the assembly process, Basic function, Machine dependent and machine independent features of assembler, Types of assemblers – single pass, multi-pass, cross assembler, Macros & Macro processors.

Unit – V

Loaders and Compilers

Basic Loader Functions, Linking and Concept of Static & Dynamic Relocation, Various loader schemes with their advantages and disadvantages, Compilers, Phases of a Compiler, Comparison of Compilers & Interpreters, Machine dependent & Machine Independent Compiler Features, Aspects of Compilation, Lexical Analysis, Syntax Analysis, Memory Allocation, Compilation of Expressions; Code optimization – local and global optimization.

Text Books:

1. Computer science: an overview, Brookshear, J.G., Pearson Education
2. Fundamental of Computers, Raja Raman V., Prentice Hall of India, New Delhi.
3. System Programming- J. J. Donovan, Tata McGraw-Hill Education.
4. System Programming and Operating systems- D. M. Dhamdhare, Tata McGraw-Hill
5. System Software: An introduction to systems programming- Leland L. Beck, Pearson Education
6. Principles of Compiler Design-Aho and Ullman, Pearson Education.
7. Linkers and Loaders, John R. Levine; Morgan Kaufman

Reference Books: 1. PC Upgrade & Repair Black Book by Ron Gilster.

2. Compiling Techniques, J P Bennett, TMH .
3. Modern Compiler Design, Dick Grune, Koen G.L, Henri Bal, Wiley India.
4. Compiler Construction, Principles and Practice, Kenneth C. Loudon; Cengage Learning
5. Fundamentals of Computers & Information Technology, A. Jaiswal, Dreamtech Press.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-I

PAPER-V
PC SOFTWARE PACKAGES AND PROGRAMMING IN C

Unit – I

MS WINDOWS 7 and MS Word

Installing WINDOWS, Basic Elements of WINDOWS, Working with Windows, Connecting to the Internet: Dial-Up Connections, Broadband Connections, Installing New Hardware & Printer, Installing & Removing Software, Power Settings, MS Word: Menus, Shortcuts, Document types; Working with Documents: Function of tool bar and menu bar. MS Power Point: Creating new Presentation, Different presentation templates, Setting backgrounds, Function of Tool Bar and Menu Bar, Inserting pictures, movies, tables, etc into the presentation, Setting Animation & transition effect, Adding audio and video, Printing Handouts, Generating standalone presentation viewer.

Unit – II

MS Excel and MS Access

Introduction: Spreadsheet & its Applications, Menus & Toolbars & icons, Shortcuts, Working with Spreadsheets, Computing data: Formula, Formatting Spreadsheets, Worksheet: Sheet Formatting & style background, Graphs, Printing worksheet. MS Access: Database concepts: Tables, Queries, Forms, Reports, Opening & Saving database files: Creating Tables, Table Design, Indexing, Entering data, Importing data, Creating Queries: SQL statements, Setting relationship, Creating Forms: GUI, Form, Creating & printing reports.

Unit-III

C Programming Concepts

History of C language, C Language Character set, Tokens, Constant, Keywords and Identifiers, Variables Data Types and operators, Loop and Branch statements, .

Unit-IV

Arrays, String, Structures and Unions in C

Arrays, Arrays and Strings, Structures and Unions: Definitions, Initialization and Assigning Values to Members, Arrays of Structures and Arrays Within Structures, Structure with in Structure, Unions- Size of Structures, Functions and Pointers: Recursion - Functions with Arrays, Pointers: Declaration and Initialisation of Pointers, Pointer Expression, Operation on Pointers, Pointer and Arrays, Arrays of Pointers, Pointer and Character Strings, Pointers and Functions, Pointers and Structures, Pointer on Pointers.

Unit-V

File Maintenance in C

File Input/Output: Introduction, Defining, Opening and closing a file, Study of file I/O Operations: fopen (), fclose (), fputs (), fgets (), fread (), fwrite(), Input / Output Operations on a file, Random access to file, Command line arguments, Time, Date and Localization Functions, Dynamic Allocation Functions, Utility Functions, Wide-Character Functions.

Text Books:

1. Comdex Computer Course Kit (windows 7 with office 2010), Gupta Vikas, Dreamtech Publication
2. Mastering MS Office 2000, Professional Edition by Courter, BPB Publication.
3. MS Office 2000 Training Guide by Maria, BPB Publications.
4. MS Office complete by SYBEX.
5. LET US C, Yashwant Kanetkar, BPB PUBLICATIONS
6. The Complete Reference C, Herbert Schildt, Tata McGraw HILL
7. PROGRAMMING IN ANSI C - by E. Balgurusamy – Tata McGraw HILL
8. PROGRAMMINGWITH C, Byron Govtfred, Tata McGraw HILL

Reference Books:

1. The “C” Programming Language, Briain W. Kenigham & Dennis Ritchie, Pearson
2. The Spirit of “C”- Henry Mulish, Herbert L. Cooper.
3. Mastering “C”- Crain Bolon.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-I

PAPER-VI
DATA STRUCTURE

Unit – I

Introduction and Array

Data Types, Data Structure and its Classification, Arrays: Array concept (one dimension, two dimension), Operations for one dimension array (insertion, deletion, traversal), Examples.

Unit –II

Linked Lists

Concept of a linked list, Circular & Doubly linked list, Operations on linked lists, List Manipulation with Pointers, Insertion & Deletion of elements, Applications of linked lists.

Unit –III

Stacks-Queues and Binary Tree

Definitions and Structure, Representation using Array & Linked List, Application of Stack and Queues, Postfix and Prefix Conversion, Evolution of Arithmetic Expressions, Binary Trees: Definition, Memory Representation, Trees traversal algorithms (recursive and non-recursive), threaded trees, BFS, DFS.

Unit –IV

Searching and Sorting

Linear and Binary Search Algorithms, Complexity, Binary Search Trees (construction, insertion, deletion & search), Sorting Algorithms: Bubble Sort, Insertion Sort, Selection Sort, Tree sort, Heap Sort, Quick Sort, Merge Sort & Radix sort, External Sorting.

Unit –V

Analysis of Algorithm

Time and Space Complexity of Algorithms, Average Case & Worst Case Analysis, Asymptotic Notation, Big O notations, Analysis of sorting algorithms -Selection sort, Bubble sort, Insertion sort, Heap sort, Quick sort and Analysis of searching algorithms –Linear Search & Binary Search.

Text Book:

1. Data Structures using C, A. M. Tenenbaum, Langsam, Moshe J. Augentem, PHI Pub.
2. Data Structures using C by A. K. Sharma, Pearson Education
3. Data Structures and Algorithms, A.V. Aho, J.E. Hopcroft and T.D. Ullman, Addison-Wesley, Low Priced Edition.
4. Fundamentals of Data structures, Ellis Horowitz & Sartaj Sahni, AW Pub.
5. Fundamentals of computer algorithms, Horowitz Sahni and Rajasekaran, Pearson Edu.
6. Data Structures and Program Design in C, Robert Kruse, PHI.

Reference Books:

1. Theory & Problems of Data Structures, Jr. Seymour Lipschetz, Schaum's outline by TMH
2. Introduction to Computers Science -An algorithms approach , Jean Paul Tremblay, Richard B. Bunt, 2002, T.M.H.
3. Data Structure and the Standard Template library – Willam J. Collins, 2003, T.M.H



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-I

LAB-I
SOFTWARE PACKAGES LAB

The lab exercise should be based on MS Windows 7 or higher version and MS Office 2007 or higher version and comprises the theoretical paper as well as practical paper.

Section-A

WINDOWS 7 : Basic Elements of WINDOWS, My Computer, Sharing Devices, Windows Explorer, Accessories: Entertainment, Communication, System Tools, Paint Brush, Calculator, Calendar, Clock, Note Pad, Word Pad Etc., Control Panel, Changing Color and Theme, Changing the Desktop Background, Screen Saver, Adjusting Display Settings, Adjusting Sound, Adjusting the Mouse, Changing the Date and Time.

Section-B

Introduction to MS Word: Menus, Shortcuts, Document types; Working with Documents: Opening Files – New & Existing, Saving Files, Formatting page and Setting Margins, Converting files to different formats- Importing, Exporting, Sending files to others, Editing text documents- Inserting, Deleting, Cut, Copy, paste, Undo, Redo, Find, Search, Replace, Using Tool bars, Ruler- Using Icons, Using help; Formatting Documents: Setting Font Styles, Setting Paragraph style, Setting Page Style, Setting Document Styles, Creating Tables, Drawing, Tools, Printing Documents.

Section-C

Introduction to MS Power Point: Opening new Presentation, Different presentation templates, Setting backgrounds, Selecting presentation layouts, Creating a presentation, Formatting a presentation-Adding style, Color, gradient fills, Arranging objects, Adding Header & Footer, Slide Background, Slide layout, Inserting pictures, movies, tables.

Section-D

Introduction to MS Excel: Introduction: Spreadsheet & its Applications, Opening spreadsheet, Menus & Toolbars & icons, Shortcuts, Working with Spreadsheets-Opening a File, Saving Files, Setting Margins, Converting files to different formats- Importing, Exporting and Sending files to others, Spreadsheet addressing, Entering and Editing Data, Computing data- Setting Formula, Finding total in a column or row, Mathematical operations, Formulas, Formatting Spreadsheets & Printing worksheet.

Section-E:

Introduction MS Access: Database concepts: Tables, Queries, Forms, Reports, Opening & Saving database files: Creating Tables, Table Design, Indexing, Entering data, Importing data, Creating Queries: SQL statements, Setting relationship, Creating Forms: GUI, Form, Creating & printing reports.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-I

LAB-II
PROGRAMMING LAB IN C

1. Program to find area and circumference of circle.
2. Program to find the simple interest.
3. Program to convert temperature from degree centigrade to Fahrenheit.
4. Program to calculate sum of 5 subjects & find percentage.
5. Program to show swap of two no's without using third variable.
6. Program to reverse a given number.
7. Program to print a table of any number.
8. Program to find greatest in 3 numbers.
9. Program to show the use of conditional operator.
10. Program to find that entered year is leap year or not.
11. Program to find whether given no is even or odd.
12. Program to shift inputted data by two bits to the left.
13. Program to use switch statement. Display Monday to Sunday.
14. Program to display arithmetic operator using switch case.
15. Program to display first 10 natural no & their sum.
16. Program to print Fibonacci series up to 100.
17. Program to find GCD & HCF of given Numbers using Recursion.
18. Program to find whether given no is a prime no or not.
19. Program to display sum of series $1+1/2+1/3+\dots+1/n$.
20. Program to display series and find sum of $1+3+5+\dots+n$.
21. Program to use bitwise AND operator between the two integers.
22. Program to add two number using pointer.
23. Program to find sum, subtraction, multiplication & transpose of matrices.
24. Program to reverse a number using pointer.
25. Program to show input and output of a string.
26. Program to find square of a number using functions.
27. Program to swap two numbers using functions.
28. Program to find factorial of a number using functions.
29. Program to show table of a number using functions.
30. Program to show call by value.
31. Program to show call by reference.
32. Program to find largest of two numbers using functions.
33. Program to find factorial of a number using recursion.
34. Program to find whether a string is palindrome or not.

The break-up of marks for second Year's Practical will be as under :			
Sr. No.	Argument	Maximum Marks	Minimum Passing Marks
1.	Lab Record	15	
2.	Viva-voce	20	
3.	Program Development and Execution	40	
Total Marks		75	25



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-II

SCHEME OF EXAMINATION

Paper no.	Title of Paper/s	Maximum Marks		Maximum Marks	Minimum Passing Marks
		Theory	Practical		
1.	आधार पाठ्यक्रम--हिन्दी भाषा	75	--	75	26
2.	Foundation Course- English Language	75	--	75	26
3.	Operating System	100	--	100	33
4.	Digital Electronics and Microprocessor	100	--	100	33
5.	Computer Networks and Cyber Technology	100	--	100	33
6.	Object Oriented Programming Using C++	100	--	100	33
7.	Computer Graphics and Multimedia	100	--	100	33
8.	Lab-1 Programming Lab Using C++	--	75	75	25
9.	Lab- 2 Multimedia Lab	--	75	75	25
	Total Marks	650	150	800	



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-II

आधार पाठ्यक्रम
प्रश्नपत्र—प्रथम
हिन्दी भाषा

पूर्णांक – 75

खण्ड—क

निम्नलिखित 5 लेखकों के एक-एक निबंध पाठ्यक्रम में सम्मिलित होंगे—

अंक—30

- | | | |
|------------------------|---|--------------------------|
| 1. महात्मा गांधी | — | सत्य और अहिंसा |
| 2. विनोबा भावे | — | ग्राम सेवा |
| 3. आचार्य नरेन्द्र देव | — | युवकों का समाज में स्थान |
| 4. वासुदेव शरण अग्रवाल | — | मातृ-भूमि |
| 5. भगवतशरण उपाध्याय | — | हिमालय की व्युत्पत्ति |
| 6. हरि ठाकुर | — | डॉ. खूबचंद बघेल |

खण्ड—ख

हिन्दी भाषा और उसके विविध रूप

अंक—20

- कार्यालयीन भाषा
- मीडिया की भाषा
- वित्त एवं वाणिज्य की भाषा
- मशीनी भाषा

खण्ड—ग

अनुवाद व्यवहार : अंग्रेजी से हिन्दी में अनुवाद

अंक—25

हिन्दी की व्यावहारिक कोटियाँ—

रचनागत प्रयोगगत उदाहरण, संज्ञा, सर्वनाम, विश्लेषण, समास, संधि एवं संक्षिप्तियाँ, रचना एवं प्रयोगगत विवेचन।



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-II

FOUNDATION LANGUAGE
PAPER-II
ENGLISH LANGUAGE

M.M. 75

The question paper for B.A./B.Sc./B.Com./B.H.Sc. English Language and cultural values Shall Comprise the following units :

UNIT-I

Short answer questions to be passed by (Five short answer questions of three marks each)

15 Marks

UNIT-II

(a) Reading comprehension of an unseen passage
(b) Vocabulary

05 Marks

UNIT-III

Report-Writing

10 Marks

UNIT-IV

Expansion of an idea

10 Marks

UNIT-V

Grammar and Vocabulary based on the prescribed text book.

20+15 Marks



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-II

PAPER-III
OPERATING SYSTEM

Unit – I

Introduction to Operating System

What is an Operating System, Operating Systems Architecture, Operating Systems as an Extended Machine & Resource Manager, Process Model, Process States and Transitions, Types of System Calls, System Boot, Multi-Programming, Multi-Tasking, Multi-Threading; Operating Systems Classification: Simple Batch Systems, Multi-programmed Batches systems, Time-Sharing Systems, Parallel & Distributed Operating Systems.

Unit – II

Process Management

Processes: Process Scheduling, Cooperating Processes, Inter-process Communication, Threads, CPU Scheduling: Basic Concepts, Scheduling Criteria, Scheduling Algorithms, Multiple- Processor Scheduling, Process Synchronization: Background, The Critical-Section Problem, Synchronization Hardware, Semaphores, Classical Problems of Synchronization, Critical Regions, Monitors, Deadlocks: Deadlock Characterization, Methods for Handling Deadlocks, Deadlock Prevention, Deadlock Avoidance, Recovery from Deadlock, Combined Approach to Deadlock Handling.

Unit –III

Memory Management

Main Memory Management: Background, Logical versus Physical Address space, swapping, Contiguous allocation, Paging, Segmentation, Segmentation with Paging, Virtual Memory: Demand Paging, Page Replacement, Page replacement Algorithms, Performance of Demand Paging, Allocation of Frames, Thrashing, Demand Segmentation.

Unit –IV

Device and Storage Management

File-System Interface, Mass-Storage Structure, Device Management: Techniques for Device Management, Dedicated Devices, Shared Devices, Buffering, Multiple Paths, Secondary-Storage Structure: Disk Structure, Disk Scheduling, Disk Management.

Unit –V

File-System Implementation

A Simple File System, Logical & Physical File System, File-System Interface: Access Methods, Directory Structure, Protection, Free-Space Management, Directory Implementation.

Text Books:

1. Operating System Concepts, Silberschatz and Galvin, Pearson Education Pub.
2. Operating Systems, Madnick E., Donovan J., Tata McGraw Hill,
3. Operating Systems, A. S. Tannenbaum, PHI

Reference Books:

1. Operating Systems Internals and Design Principle, William Stallings, Prentice Hall Publishers
2. Operating Systems- AConcept-Based Approach, Dhananjay M. Dhamdhare, McGraw-Hill



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-II

PAPER-IV
DIGITAL ELECTRONICS AND MICROPROCESSOR

Unit – I

Background of Digital Electronics

Digital Signals, Different Type of Numbering Systems: Decimal, Octal, Binary, Hexadecimal, Conversation from one number system to another number system, Binary Math: Binary Addition, Binary Subtraction, Binary Complements, One's & Two's Complement, Binary Subtraction using Two's Complement, Signed Magnitude, Floating Point Binary, IEEE Standard 754 Floating-Point Formats, Logic Gate Basics: NOT Gate, AND Gate, OR Gate, Exclusive-OR (XOR) Gate, Truth Tables for Logic Gates, Truth Tables for Combinational Logic.

Unit – II

Logic Families

Introduction to Semiconductor, Fundamentals of Semiconductor Devices, Diode and Transistor Characteristics, Diode And Transistor As A Switch, Evolution of Logic Gates, Types of Logic Family: Circuit of RTL, DTL, TTL and Working Function as a Gate, Emitter Coupled Logic (ECL), CMOS Logic Family, NMOS and PMOS Logic, Comparison of Different Logic Families.

Unit – III

Boolean Algebra and Karnaugh Maps

Boolean Algebra, Boolean Expressions of Combinational Logic, Laws of Boolean Algebra, Rules of Boolean Algebra: NOT Rule, OR Rules, AND Rules, XOR Rules, Derivation of Other Rules, Simplification, DeMorgan's Theorem, Boolean Expression Formats: Sum-of-Products, Product-of-Sums, Converting SOP & POS to Truth Table & Truth Table to Expression, Karnaugh Maps, Minimization techniques of Boolean Expression using K-Maps, "Don't Care" Conditions, Minimization of Multiple Output Boolean Functions, VEM Theory of K-Map, MEV and Minimization of Two, Three, Four, Five and Six Variable Maps using VEM.

Unit – IV

Combinational and Sequential Circuit

Creation of Different Combinational Circuits using K-Map: Adders, Seven-Segment Displays Circuits, BCD to Gray code Converter, BCD to Ex-3 code Converter, BCD to 84-2-1 code converter, Digital Comparator and other Combinational Circuit, Carry Propagation–Look-Ahead Carry Generator, Decoders, Multiplexers, De-multiplexers, State Machine Design Process: Mealy Versus Moore State Machines, S-R Latch/ Flip-Flop, D Latch, J-K Flip-Flop, Divide-By-Two Circuit, Registers, Counter: Ripple (Asynchronous) Counter and Synchronous Counter, UP/DOWN Counters, Design of Synchronous Counter using K-Map.

Unit – V

Fundamentals of Microprocessor

What is Microprocessor, Evolution of Microprocessor, Various Microprocessor Families and Examples, Generic Architecture of Microprocessor, Pin Diagram & Pin Functions of Intel 8085 Microprocessor, Instruction Set for Microprocessor, Definition and Need of Addressing mode, Addressing modes of Intel 8085 & 8086 Microprocessor, Machine Cycle and Instruction Cycle of Microprocessor, Working of Microprocessor.

Text Books:

1. Modern Digital Electronics, R.P. Jain, TMH
2. Digital Principles & Application, Leach & Malvino, TMH
3. Digital Logic Design, Morris Mano, PHI
4. Digital design- Principles and Practices, J. F. Wakerly, Pearson India.
5. Microprocessor - Architecture, Programming and Applications with the 8085", Ramesh S.Gaonkar, PHI.
6. The 8085A Microprocessor software, programming and Architecture, Brarry B.Bray, PHI



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-II

Reference Books:

1. Digital Integrated Electronics, H.Taub & D. Shilling, McGraw Hill.
2. Digital Principles & Design, Givone, TMH
3. Digital Circuit & Design, S. Aligahanan, S. Aribazhagan, Bikas Publishing House.
4. Fundamentals of Digital Electronics & Microprocessor, Anokh Singh, A.K. Chhabra, S. Chand
5. Digital circuits and Logic Design, Samuel Lee, PHI publication



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-II

PAPER-V
COMPUTER NETWORKS AND CYBER TECHNOLOGY

Unit – I

Introduction to Computer Network and Physical Layer

Computer network Fundamentals and Types of computer networks: LAN, MAN, WAN, Wireless and wired networks, broadcast and point to point networks, Network topologies, ISO-OSI reference model, TCP/IP model, Concept of Analog & Digital Signal, Bandwidth, Multiplexing: TDM, FDM, WDM, CDMA, Transmission Media : Twisted pair, Coaxial cable, Fiber-optics, Wireless transmission (radio, microwave, infrared), Switching: Circuit Switching, Message Switching, Packet Switching & their comparisons, Line Coding techniques: Bipolar, Unipolar, RZ, NRZ, Manchester, AMI, B8ZS, Block coding techniques.

Unit –II

Data Link Layer

Functions at Data Link Layer, Framing, Error detection and correction codes: checksum, CRC, hamming code, Flow Control: Stop & Wait and Sliding Window Protocols, Data link protocols: HDLC and PPP, Medium Access Sub-Layer: LLC Protocol, IEEE 802.2, Overview of IEEE 802.3, 802.4, 802.5, 802.6 and brief knowledge of 802 series up to present scenario.

Unit –III

Network Layer and Transport Layer

Functions of Network Layer, Routing Protocols & Algorithms, Principles of Congestion Control, IPv4 addresses, IPv4 Addressing, IPv6 addresses, Internetworking basics, Functions of Transport Layer, Flow Control & Buffering, Introduction to TCP/UDP protocols and their comparison.

Unit –IV

Common Network Architecture

Protocol Stack for Example Networks, Connection oriented & Connectionless N/Ws, Frame Relay, Example of N/Ws-P2P, X.25, ATM, Ethernet, Wireless LANs - 802.11, 802.11x, Gigabit, Broad Band Networks: Integrated Service Digital Networks (ISDN), Broad Band ISDN, ATM, Introduction to Very Small Aperture Terminal (VSAT).

Unit –V

Application Layer

World Wide Web (WWW), Domain Name System (DNS), E-mail, File Transfer Protocol (FTP), Hyper Text Transfer Protocol (HTTP), Email Protocols: MIME & SMTP, POP, IMAP, Telnet – Remote Communication Protocol, Proxy Server, Proxy Web Servers.

Cyber Laws in India

Information Technology Act, 2000 – a brief overview; E – commerce; E – governance; Concept of Electronic Signature; Concept of Cyber contraventions and Cyber Offences, IT Act, 2000.

Text Books:

1. Computer Networks, Andrew S. Tanenbaum, PHI / Pearson Education Inc.,
2. Data Communication and Networking, Behrouz A. Forouzan, Tata McGraw-Hill.
3. Internet Law-Text and Materials, Chris Reed, Universal Law Publishing Co., New Delhi
4. Hand book of Cyber Laws, Vakul Sharma, Macmillan India Ltd, New Delhi

Reference Books:

1. Data and Computer Communication, William Stallings, Pearson Education.
2. Computer and Communication Networks, Nader F. Mir, Pearson Education, 2007.
3. Data & Computer Communication, Black, PHI.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-II

PAPER-VI
OBJECT ORIENTED PROGRAMMING USING C++

Unit-I

Features of C++, OOP vs. procedure-oriented programming, OOP Concepts: Abstraction, Inheritance, Polymorphism, Data Binding, Encapsulation, Classes, subclasses and Objects; Basics of C++: Data Types and sizes, Variable, Constants and its types, Use of << and >> operators, Operators and Expressions: Operators:-Arithmetic, Relational, Assignment, Logical, Increment and Decrement Operators (++ and --), 'Operate-Assign' Operators (+=, *=, ...); Expressions, Operator Precedence, Precedence and Order of Evaluation, Conditional Expression, Casting and type conversion.

Unit-II

Program Flow & Decision Control: if, if – else, if - else if, Loop Control: while, do – while, for, break, continue, Case Control: switch, goto; Functions/Procedures, Returning values from functions, Arguments Passed by Value, Passing Addresses of Arguments, Pointers and Arrays: Pointer Initialization, Pointer Operators, Pointer Arithmetic, Functions and pointers, Arrays, Initializing Arrays, Passing Arrays to Functions, Pointers and Arrays, Pointer to an Array, Array of pointers, Strings: String I/O, Arrays of Strings, Structures, Arrays of Structures.

Unit-III

Binding Data & Functions: Defining a Class, Creating an Object, Scope, Data Abstraction, Data Encapsulation, 'this' Pointer, Dynamic Creation of Objects, Constructors and Destructors: Parameterized & Copy constructor, Member Functions & Methods, Friend Class and Friendly Functions, Returning Objects, Arrays of Objects.

Unit-IV

Function and Operator Overloading, Rules for Overloading, Operator overloading and its uses: Overloading unary and binary operators, Overloading the Assignment Operator, Overloading the << Operator, Overloading the Increment & Decrement Operator, Converting data types: Basic to class type, Class to Basic Type, Class to Another Class Type.

Unit-V

Reusing Classes: Inheritance-Base and Derived classes, Inheritance types, Scope Resolution Operator, Access Modifiers, Multiple & Multilevel Inheritance, Calling Base Class Constructor, Overriding Base Class Members, Virtual functions and Polymorphism: Virtual & non-virtual Overriding, Rules for Virtual Functions, Pure Virtual Functions, Static and Dynamic Binding, Virtual Base Classes, Templates, Exception Handling, Throwing an exception.

Text books:

1. C++, The Complete Reference, 4th Edition, Herbert Schildt, TMH.
2. Object Oriented Programming in C++, 4th Edition, R.Lafore, SAMS, Pearson Education

Reference Books:

1. An Introduction to OOP, 3rd Edition, T. Budd, Pearson Education,2008.
2. Programming Principles and Practice Using C++, B.Stroutstrup, Addison- Wesley, Pearson Education.
3. Problem solving with C++, 6th Edition, Walter Savitch, Pearson Education,2007..
4. The Art, Philosophy and Science of OOP with C++, R.Miller,SPD.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-II

PAPER-VII
COMPUTER GRAPHICS AND MULTIMEDIA

Unit-I

An Introduction Graphics System

Computer Graphics Fundamentals, Application of Computer Graphics, Video Display Devices, Raster & Random Scan Systems, Input Devices, Graphics Software, Interactive devices, Output Primitives, Line Drawing & Circle Generating Algorithms, Scan-Line Polygon Fill Algorithm, Inside-Outside tests, Boundary-Fill Algorithm, Flood Fill Algorithm.

Unit-II

2D Transformations

2-D Viewing and Clipping: Viewing Transformations, Point Clipping & Line Clipping Algorithms, Polygon Clipping algorithms, 2D Geometric Transformations: Basic transformations (Translation, Rotation, Scaling), Matrix Representation & Homogeneous Coordinates, Composite transformations, Reflection and Shear.

Unit-III

3D transformations

3D Viewing Transformation, Projections: Parallel Projection (Orthographic & Oblique Projections, Isometric Projections), Perspective Projections, 3D Geometric Transformations: Translation, Rotation, Scaling, Matrix Representation, 3D Object Representations: Polygon Surface and Polygon table, Bezier curves and surfaces.

Unit-IV

Multimedia and Photoshop s/w

Fundamentals of Multimedia, Adobe Photoshop CS4: Menus and panels, Exploring the Toolbox, Working with Images: Working with Multiple Images, Rulers, Guides & Grids, Image Size Command, Adjusting Canvas Size & Canvas Rotation, Creating, Selecting, Linking & Deleting Layers, Painting with Selections, Red Eye Tool, Clone Stamp Tool, Color creation, Quick Mask Options, Creating Straight & Curved Paths, Creating Special Effects.

Unit-V

CorelDraw X4

CorelDraw X4 Command Bars & Tools, Drawing Area-Objects-Lines, Working with Text & Artistic Media Tool, Fills & Modifying Outlines, Drop Shadows, Importing and Editing OCR Text, Templates, Drawing and Editing Curves and Lines, Three-point Tools, Clipart, Special Characters and Creating Symbols, Working with Layers & Creating a Master Layer, Brush Tools and Adding Objects, Interactive Tools, PowerClip Feature and the Envelope Tool.

Text Books:

1. Procedural Elements for Computer Graphics, D.F. Rogers, Tata McGraw Hill
2. Fundamentals of Interactive Computer Graphics, J.D. Foley and A.D. Van, Addison-Wesley.
3. How to Do Everything Adobe Photoshop CS4, Chad Perkins, Tata McGraw Hill
4. Corel Draw X4: The Official Guide, (Paperback), Gary David Bouton, Tata McGraw Hill

Reference Books:

1. Photoshop CS4 Quicksteps, Carole Matthews & Gary David Bouton, Tata McGraw Hill
2. CorelDRAW X4, Deborah Miller, Pearson Education
3. Coreldraw X5 In Simple Steps, Hindi Ed., ISBN : 9789350042885, Kogent, Wiley Publications
4. Mathematical Elements for Computer Graphics, Rogers and Adam, Tata McGraw Hill.
5. Theory & Problem of Computer Graphics, Plastock, Schaum Series.
6. Computer Graphics, Tosijasu, L.K., Springer-verleg
7. Principles of Interactive Computer Graphics, Newman, Tata McGraw Hill.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-II

LAB-I
PROGRAMMING LAB USING C++

List of Sample Problems/Experiments:

1. Write a C++ program to find the sum of individual digits of a positive integer.
2. A Fibonacci sequence is defined as follows: the first and second terms in the sequence are 0 and 1. Subsequent terms are found by adding the preceding two terms in the sequence. Write a C++ program to generate the first n terms of the sequence.
3. Write a C++ program to generate all the prime numbers between 1 and n , where n is a value supplied by the user.
4. Write C++ programs that use both recursive and non-recursive functions
 - a. To find the factorial of a given integer.
 - b. To find the GCD of two given integers.
 - c. To find the nth Fibonacci number.
5. Write a C++ program that uses a recursive function for solving Towers of Hanoi problem.
6. Write a C++ program to find both the largest and smallest number in a list of integers.
7. Write a C++ program to implement the matrix ADT using a class. The operations supported by this ADT are:
 - a) Reading a matrix.
 - b) Printing a matrix.
 - c) Addition of matrices.
 - d) Subtraction of matrices.
 - e) Multiplication of matrices.

Note: Practical must be as per syllabus of theoretical paper.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-II

LAB-II
MULTIMEDIA LAB

Series of Practical Curriculumms

Photoshop:

1. (i) Handling different file formats and interchanging them, changing the resolution, color, grayscales and size of the images
(ii) Using brushes and creating multicolor real life images
2. Cropping, rotating, overlapping, superimposing, pasting photos on a page
3. Creation of a single image from selected portions of many
4. Developing a commercial brochure with background tints
5. Creating an image with multi-layers of images and texts.
6. Applying masks and filtering on images

7. CorelDRAW X4 Part 1

- Getting Started with CorelDRAW
- Starting CorelDRAW
- Working with Command Bars
- Working with Layers
- Examining a Master Page
- Creating a Master Layer
- Working with Layers
- Using Brush Tools and Adding Objects
- Working with Interactive Tools
- Using Advanced Techniques for Text Manipulation
- Working with Paragraph Text
- The PowerClip Feature and the Envelope Tool
- Creating Bulleted Lists
- Working with Vector and Bitmap Graphics
- Converting Vector Objects to Bitmaps
- Working with Bitmap Graphics
- Introduction to CorelTRACE
- Advanced Output Options
- Preparing a Document For Printing
- Other Printing Options

The break-up of marks for Fourth Year's Practical will be as under :

Sr. No.	Argument	Maximum Marks	Minimum Passing Marks
1.	Lab Record	15	
2.	Viva-voce	20	
3.	Program Development and Execution	40	
Total Marks		75	25



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-III

SCHEME OF EXAMINATION

Paper no.	Title of Paper/s	Maximum Marks		Maximum Marks	Minimum Passing Marks
		Theory	Practical		
1.	आधार पाठ्यक्रम-हिन्दी भाषा	75	--	75	26
2.	Foundation Course- English Language	75	--	75	26
3.	Computer Organization and Architecture	100	--	100	33
4.	Software Engineering	100	--	100	33
5.	Database Design and RDBMS (Oracle)	100	--	100	33
6.	Web Technology	100	--	100	33
7.	Numerical Analysis	100	--	100	33
8.	Lab-1 RDBMS & Web Technology	--	75	75	25
9.	Lab-2 Minor Project	--	75	75	25
	Total Marks	650	150	800	
	Grand Total Marks of BCA- I, II & III			2400	



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-III

आधार पाठ्यक्रम
हिन्दी भाषा
प्रथम प्रश्नपत्र

पूर्णांक-75

(बी.ए./बी.एससी./बी.एच.एससी./बी.कॉम. तृतीय वर्ष के पुनरीक्षित एकीकृत आधार पाठ्यक्रम और पाठ्य सामग्री का संयोजन)

!! सम्प्रेषण कौशल, हिन्दी भाषा और सामान्य ज्ञान!!

आधार पाठ्यक्रम की संरचना और अनिवार्य पाठ्य पुस्तक-हिन्दी भाषा एवं समसमायिकी- का संयोजन इस तरह किया गया है कि सामान्य ज्ञान की विषय-वस्तु विकासशील देशों की समस्याओं के माध्यम और साथ-साथ हिन्दी भाषा का ज्ञान और उसमें सम्प्रेषण कौशल अर्जित किया जा सके। इसी प्रयोजन से व्याकरण की अन्तर्वस्तु को विविध विधाओं की संकलित रचनाओं और सामान्य ज्ञान की पाठ्य सामग्री के साथ अन्तर्गुम्फित किया गया है। अध्ययन-अध्यापन के लिए पूरी पुस्तक की पाठ्य सामग्री है। और अभ्यास के लिये विस्तृत प्रश्नावली है। यह प्रश्नपत्र भाषा का है। अतः पाठ्य सामग्री का व्याख्यात्मक या आलोचनात्मक अध्ययन अपेक्षित नहीं है। पाठ्यक्रम और पाठ्य सामग्री का संयोजन निम्नलिखित पांच इकाइयों में किया जाता है। प्रत्येक इकाई को दो भागों में विभक्त किया गया है।

- इकाई-1 (क)** भारत माता: सुमित्रानंदन पंत, परशुराम की प्रतीज्ञा: रामधारी सिंह दिनकर, बहुत बड़ा सवाल: मोहन राकेश, संस्कृति और राष्ट्रीय एकीकरण: योगेश अटल।
(ख) कथन की शैलियाँ: रचनागत उदाहरण और प्रयोग।
- इकाई-2 (क)** विकासशील देशों की समस्याएँ, विकासात्मक पुनर्विचार, और प्रौद्योगिकी एवं नगरीकरण।
(ख) विभिन्न संरचनाएं।
- इकाई-3 (क)** आधुनिक तकनीकी सभ्यता, पर्यावरण प्रदूषण तथा धरणीय विकास
(ख) कार्यालयीन पत्र और आलेख।
- इकाई-4 (क)** जनसंख्या: भारत के संदर्भ और गरीबी तथा बेरोजगारी।
(ख) अनुवाद।
- इकाई-5 (क)** ऊर्जा और शक्तिमानता का अर्थशास्त्र।
(ख) घटनाओं, समारोहों आदि का प्रतिवेदन और विभिन्न प्रकार के निमंत्रण-पत्र।

मूल्यांकन योजना: प्रत्येक इकाई से एक-एक प्रश्न पूछा जायेगा। प्रत्येक प्रश्न में आंतरिक विकल्प होगा। प्रत्येक प्रश्न के 15 अंक होंगे। प्रत्येक इकाई दो-दो खंड क्रमशः 'क' और 'ख' में विभक्त है, इसलिए प्रत्येक प्रश्न के भी दो भाग, (क्रमशः 'क' और 'ख') होंगे। 'क' का अर्थात् पाठ एवं सामान्य ज्ञान से संबद्ध प्रश्न के अंक 8 एवं 'ख' अर्थात् भाषा एवं सम्प्रेषण कौशल से संबद्ध प्रश्न के अंक 7 होंगे। इस प्रकार पूरे प्रश्न पत्र के पूर्णांक 75 होंगे।



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-III

FOUNDATION COURSE
PAPER-II
ENGLISH LANGUAGE

M.M. 75

The question paper for B.A./B.Sc./B.Com./B.H.Sc. III Foundation course, English Language and General Answers shall comprise the following items :
Five question to be attempted, each carrying 3 marks.

UNIT-I	Essay type answer in about 200 words. 5 essay type question to be asked three to be attempted.	15
UNIT-II	Essay writing.	10
UNIT-III	Precise writing.	10
UNIT-IV	(a) Reading comprehension of an unseen passage (b) Vocabulary based on text	05 10
UNIT-V	Grammar Advanced Exercises	25

Note:

Question on unit I and IV (b) shall be asked from the prescribed text. Which will comprise of popular create writing and the following items. Minimum needs housing and transport Geo-economic profile of M.P. communication Educate and culture. Women and Worm in Empowerment Development, management of change, physical quality of life. War and human survival, the question of human social value survival, the question of human social value, new Economics philosophy Recent Liberalization Method) Decoration decentralisation (with reference to 73, 74 constitutional Amendment.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-III

PAPER-III
COMPUTER ORGANIZATION AND ARCHITECTURE

Unit-I

Top Level Organization:

Computer function, Difference between program compilation and Program Execution, Programs and Data, Data Representation, Computer Organization: Registers and Memory, Computer Arithmetic: Integer and Floating point arithmetic, Instructions, Machine instructions, Types of operands, Instruction Types, Instruction format, Instruction Execution, A Simple Machine instruction cycle, Instructions Mnemonics and Syntax, Instruction set, Addressing Mode, Type of Addressing Mode.

Unit-II

Internal Organization and Design:

Instruction Set Architecture, Architecture Space, Architecture Examples, Binary Arithmetic, ALU Design, Overflow, Floating Point Arithmetic, Processor Design: Introduction, Simple Design, Multi Cycle Approach, Processor Design Micro programmed Control, Processor Design Exception Handling, Processor Activities, Controller Design: Micro programmed and Hardwired, Typical Micro Instructions, Micro-Operations, Hardwired Implementation, Micro programmed Control: Microinstruction Sequencing, Microinstruction execution, Application of Microprogramming.

Unit-III

Classification and Uni-processor Architecture:

Classification of Computer, Flynn's Classification, Classification of computer on the basis of speed, size, capacity, generation etc., Types of Parallel Computer, Pipeline technique, Different Types of Pipelining, Instruction Pipeline, RISC & CISC Pipeline, Pipeline hazards, Vector Processing, Array Processor.

Unit-IV

Memory Organization:

Memory Hierarchy: Basic Idea, Main Memory: RAM & ROM chip, Auxillary Memory, Advanced DRAM Organization, Cache Memory: Cache Memory Principles, Elements of Cache Design, Cache operation, Cache Organization, Pentium 4 and PowerPC Cache Organization, Type of Cache Coherence, Virtual Memory: Basic Idea, Theory, Implementation of Virtual Memory.

Unit-V

I/O Organization and Multi-Processor Architecture

External Devices, I/O Modules, Input / Output Subsystem: Introduction, Interfaces and buses, I/O Operations, Designing I/O Systems, Programmed I/O , Interrupt Driven I/O , OMA : Direct Memory Access, Device Service Routines, Input-Output Processor, Tightly Coupled MIMD Architecture: Shared Memory and Message Passing Architecture with examples.

Text Books: 1. Computer System Architecture, M. Morris Mano, PHI Pearson Edu.

2. Computer Organization, C Hamacher, Z Vranesic, SafwatZaky, McGraw Hill.

3. Computer Architecture and Organization, J. P. Hayes, Tata McGraw-Hill.

Reference Books: 1. Structured Computer Organization, A. S. Tanenbaum, Pearson Edu.

2. Fundamentals of Computer Organization, P. Dandamudi , Springer.

3. Computer Organization and Architecture, William Stallings, Pearson/PHI.

4. Computer Organization and Design ,D.A.Paterson & John L. Hennessy, Elsevier.

5. Computer Architecture and Organization, M. Murdoccaand V. Heuring, Wiley India.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-III

PAPER-IV
SOFTWARE ENGINEERING

UNIT I

Software Process Models:

The Evolving role of Software, Software - The changing Nature of Software, Legacy software, A generic view of process, layered Technology, Process Framework, The Capability Maturity Model Integration (CMMI), Process Assessment, Personal and Team Process Models, Product and Process, Process Models, Waterfall Model, Incremental Process Model, RAD Model, Evolutionary Process Models, Prototyping, Spiral Model, Concurrent Development Model, Specialized Process Models, Unified Process.

UNIT II

Requirement Engineering:

Software Engineering Practice, communication Practice, Planning practice Modelling practice, Construction Practice, Deployment. Requirements Engineering, Requirements Engineering tasks, initiating the requirements Engineering Process- Eliciting Requirements Developing Use cases, Building the Analysis Models, Elements of the Analysis Model, Analysis pattern, Negotiating Requirements, Validating Requirements.

Unit III

Analysis Modelling:

Requirements Analysis, Analysis Modelling approaches, data modelling concepts, Object oriented Analysis, Scenario based modelling, Flow oriented Modelling, Class based modelling, creating a behavior model.

Unit IV

Design & Testing:

Design Engineering, Design process, Design Quality, Design model, User interface Design Testing strategies, Testing Tactics, strategies Issues for conventional and object oriented software, validation testing, system testing, Art of debugging, Project management

Unit V

Quality & Maintenance:

Software evolution, Verification and Validation, Critical Systems Validation, Metrics for Process, Project and Product, Quality Management, Process Improvement, Risk Management Configuration Management, Software Cost Estimation

Text Books:

1. Fundamentals of Software Engineering, Rajib Mall, PHI Learning Pvt. Ltd.
2. Software Engineering, Ian Sommerville, Pearson Education Inc., New Delhi.
3. Software Engineering: A Practitioner's Approach, Roger S. Pressman, Tata McGraw-Hill
4. Software Project Management, Walker Royce, Pearson Education.

Reference Books:

1. Software Engineering, Shari L, Joanne M. Atlee, Pearson Education, Inc. New Delhi.
2. Software Engineering, Pankaj Jalote, Wiley India Pvt. Ltd., New Delhi.
3. Software Engineering, Dines Bjørner, Springer India Pvt. Ltd., New Delhi.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-III

PAPER-V
INTRODUCTION TO RDBMS (ORACLE)

UNIT-I

Overview of database management system

Database, Definition of DBMS, Purpose of Database System, Data abstraction, Instances and Schema, Data Independence, Data administration roles, Different kinds of DBMS users, Data Dictionary, Data base languages- DDL, DML, DCL Data Models The Relational approach, The Network approach, The Hierarchical approach, DBMS storage structure and access method.

UNIT-II

Entity-relationship model:

Entity - Relationship model as a tool for conceptual design-entities attributes and relationships. ER diagrams; Concept of keys: candidate key, primary key, alternate key, foreign key; Strong and weak entities, Case studies of ER modelling Generalization; specialization and aggregation. Converting an ER model into relational Schema.

UNIT-III

Structured Query Language Relational Algebra

Select, project, cross product different types of joins (inner join, outer joins, self join); set operations, Simple and complex queries using relational algebra. Integrity constraints: Not null, unique, check, primary key, foreign key.

UNIT-IV

Relational Database Design

Normalization concept in logical model; Pitfalls in database design, update anomalies: Functional dependencies, Join dependencies, Normal forms (1NF, 2NF, 3NF). Boyce Code Normal form, Decomposition, Multi-Valued Dependencies, 4NF, 5NF.

UNIT-V

INTRODUCTION TO ORACLE

Introduction to Commercial database query language, SQL & its environment. SQL as a data definition language- creating tables, altering tables, drop tables. SQL as data manipulation language- Inserting, Deleting, Retrieving and updating data in a table. SQL as query language. Introduction to SQL constructs (SELECT ... FROM, WHERE ... GROUP BY ... HAVING ... ORDERBY ...) Temporary tables, Nested queries

Text Books:

1. Fundamentals of Database Systems, R Elmasri & S B. Navathe, Pearson Education.
2. Database Systems Concepts, A Silberschatz, H F. Korth & S. Sudarshan, McGraw-Hill.
3. Fundamentals of Database Management Systems, Mark L. Gillenson, Wiley India Pvt.
4. Introduction To Database Systems, C.J.Date, Longman, Pearson Education

Reference Books:

1. Database Systems: A Complete Book, Molina, Ullman, J. Widom, Pearson Education.
2. Database Systems: Design, Implementation, and Management, Peter Rob & Carlos Coronel, CENGAGE Learning India Pvt. Ltd., New Delhi.
3. Database Systems Using Oracle, Nilesh Shah, PHI Learning Pvt. Ltd., New Delhi.
4. Database Management Systems, R Ramakrishnan, J Gehrke, McGraw-Hill Education
5. Database Development and Management, Lee Chao, Auerbach Publications.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-III

PAPER-VI
WEB TECHNOLOGY

Unit-I

Introduction

Introduction to web, protocols governing the web, web development strategies, Web applications, Introduction to Web Publishing: Introduction, Domain Name Registration, choosing a web host and signing up for an Account, web hosting, web design and development, Testing web site, uploading web pages.

Unit-II

HTML

Introduction, Basic formatting tags: heading, paragraph, line break, bold, italic, underline, superscript, subscript, font and image. Different attributes like align, colour bgcolor, font face, border, size. Navigation Links using anchor tag: internal, external, mail and image links, Link to different web pages and sections. Lists: ordered, unordered and definition, Table tag, HTML Form controls: form, text, password, text area, button, checkbox, radio button, select box, hidden controls, Frameset and frames

Unit-III

Cascading Style Sheet (CSS) and JAVA Script

Usefulness of Style Sheets, Creating Style sheets, Classes and Pseudo Classes, CSS Tags, Background, Font, Text, Position etc.

JavaScript: Overview, Syntax & Conventions, Variables, Expression, Branching & Looping, Function, Array, Objects, Events & Document Object model, Alerts, prompts and conforms.

Unit-IV

PHP

Introduction to PHP, Server side scripting, Role of Web Server software, including files, comments, variables and scope, echo and print, Operators: Logical, Comparison and Conditional operators, Branching statements, Loops, break and continue PHP functions. Passing information between pages, HTTP GET and POST method, String functions: strlen, strpos, strstr, strcmp, substr, str_replace, string case, Array constructs: array(),list() and foreach(), PHP advanced functions: Header , Session, Cookie, Object Oriented Programming using PHP: class, object, constructor, destructor and inheritance.

Unit-V

MySQL

Features of MySQL, data types, Introduction to SQL commands-SELECT, DELETE, UPDATE, INSERT, PHP functions for MySQL operations: mysql_connect, mysql_select_db, mysql_query, mysql_fetch_row, mysql_fetch_array, mysql_fetch_object, mysql_result, Insertion and Deletion of data using PHP, Displaying data from MYSQL in webpage.

Text Book:

1. Xavier, C, "Web Technology and Design", New Age International.
2. Ivan Bayross, "HTML, DHTML, Java Script, Perl & CGI", BPB Publication.
3. Ramesh Bangia, "Internet and Web Design", New Age International.
4. Ullman, "PHP for the Web: Visual Quick Start Guide", Pearson Education.
5. Jim Converse & Joyce Park, "PHP & MySQL Bible", Wiley India Publication "Internet and Internet Engineering", Daniel Minoli, TMH.
6. Chuckmusiano & Bill Kenndy, O Reilly, HTML The Definite Guide"
7. Joseph Schmuller, Dynamic HTML, BPB, 2000.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-III

PAPER-VII
NUMERICAL ANALYSIS

UNIT-I

Algebraic Equations

Solution of Polynomial and Transcendental Algebraic Equations: Bisection method, Regula-falsi method & Newton's method, Solution of Cubic & Biquadrate Equation, Complex roots of polynomial equations.

UNIT- II

Simultaneous Equations

Simultaneous Equations and Matrix, Gauss-Jordan method, Cholesky's method, Reduction to lower or upper Triangular forms, Inversion of matrix, method of partitioning, Characteristics equation of matrix, Power methods, Eigen values of matrix, Transformation to diagonal forms.

UNIT - III

Curve-Fitting

Curve-Fitting from Observed Data Divided difference table for evenly or unevenly spaced data, polynomial curve-fitting - Newton's, Gauss and Lagrange's form of interpolation and Divided Differences, method of least square for polynomials,.

UNIT - IV

Numerical Differentiation and Integration

Numerical Differentiation and Integration, Forward and Backward differential operators, Newton - cotes integration formula: Trapezoidal Rule, Simpson's Rule, Boole's Rule, Weddle Rule, Legendre's rule, method of weighted coefficients.

UNIT - V

Solution of Differential Equations

Solution of Differential Equations, Numerical Solution of ordinary differential equations, one step method, Taylor's Series, Predictor- Corrector Method, Euler's Method, Runge-Kutta Method, Milne's method.

Text Books:

1. Garewal B.S., "Numerical methods", Khanna Publication.
2. Gupta & Mallic, "Numerical Methods", Krishna Prakashan.
3. Hamming R.W., "Numerical Methods for scientist & Engineers", McGraw Hill.
4. Conle S.D., "Elementary numerical analysis Carl De Boor", International Book Company London.
5. Jain M.K., "Numerical methods for Science and Engineering" Iyengar S.R.K. Calculations (John Willey & Sons).



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
B.C.A. PART-III

LAB-I
RDBMS & WEB TECHNOLOGY
Practical as per syllabi of theoretical paper.

The break-up of marks for Third Year Practical will be as under :

Sr. No.	Argument	Maximum Marks	Minimum Passing Marks
1.	Lab Record	15	
2.	Viva-voce	20	
3.	Program Development and Execution	40	
Total Marks		75	25

BCA PART-III
LAB-II
Minor Project

The break-up of marks for Project will be as under :

Sr. No.	Argument	Maximum Marks	Minimum Passing Marks
1.	Project Report	25	
2.	Viva-voce/ Presentation	25	
3.	Project Execution	50	
Total Marks		100	50

B.Sc.- I (BOTANY) PAPER-I

BACTERIA, VIRUSES, FUNGI, LICHENS AND ALGAE

UNIT-I

VIRUSES: General characteristics, types of viruses based on structure and genetic material. Multiplication of viruses (General account), Lytic and Lysogenic cycle. Economic importance. Structure and multiplication of Bacteriophages. General account of Viroids, Virusoids, Prions, and Cyanophages. Mycorrhiza-Types and Significance.

UNIT –II

BACTERIA: General characteristics and classification (on the basis of morphology), fine structure of bacterial cell, Gram positive and Gram negative bacteria, mode of nutrition and reproduction vegetative, asexual and recombination (Conjugation, transformation and transduction), Economic importance. Microbial Biotechnology, *Rhizobium*, *Azotobactor*, *Anabena*.

UNIT-III

FUNGI: General account of habit and habitat, structure (range of thallus organization), cell wall composition, nutrition and reproduction in fungi. Heterothallism and Parasexuality. Outlines of classification of fungi. Economic importance of fungi. Life cycles of *Saprolegnia*, *Albugo*, *Aspergillus*, *Peziza*, *Agaricus*, *Ustilago*, *Puccinia*, *Alternaria* and *Cercospora*. VAM Fungi

UNIT-IV

ALGAE: Algae: General characters, range of thallus organization, Gaidukov phenomenon, reproduction, life cycle patterns and economic importance. Classification, Systematic position, occurrence, structure and life cycle of following genera : *Nostoc*, *Gloeocapsa*, *Volvox*, *Oedogonium*, *Vaucheria*, *Chara*, *Ectocarpus*, *Polysiphonia*.

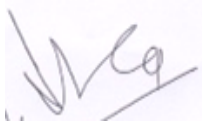
UNIT –V

Lichens- General account, types, structure, nutrition, reproduction and economic importance. Mycoplasma: Structure and importance. Blue Green Algae (BGA) in nitrogen economy of soil and reclamation of Ushar land. Mushroom Biotechnology

Books Recommended:

Dubey R.C. and Maheshwari D.K. *A text book of Microbiology*, S. Chand Publishing, New Delhi
Presscott, L. Harley, J. and Klein, D. *Microbiology*, 7th edition, Tata Mc Graw-Hill Co. New Delhi.

Sharma P.D., *Microbiology and Plant pathology*, Rastogi Publication. New Delhi.
Alexopolous, C.J. Mims, C.W. and Blackwell, MM. *Introduction to Mycology*, John Wiley & Sons.
Dubey H.C. *An Introduction to Fungi*, Vikas Publishing, New Delhi
Mehrotra R.S. & Agrawal A., *Plant Pathology*, Tata McGraw, New Delhi
Sharma P.D. *Plant Pathology*, Rastogi Publishers, Meeruth.
Sristava, H.N. *Fungi*, Pradeep Publications, Jalandhar
Webster, J. & Weber, R. *Introduction to Fungi*, Cambridge University Press, Cambridge
Kumar H.D. *Introduction to phycology*, Aff. East-west Press, New Delhi
Lee RE, *Phycology*, Cambridge University Press U.K.
Srivastava, H.N., *Algae*, Pradeep Publications, Jalandhar
Pandey S.K. Quick *Concept of Botany*, Lambert Academic publishing, Germany
Pandey S.N., Mishra S.P. & Trivedi P.S. *A Text Book of Botany* (Vol.-I), Vikas Publishing, New Delhi
Singh, Pandey and Jain, *A Text book of Botany*, Rastogi Publication, Meerut.

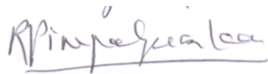


(Dr. J.N. Verma)

Proff. & Head

Govt. D.B. Girls PG College

Raipur, (C.G.)



(Dr. Rekha Pimpalgaonkar)

Proff. & Head

Govt. N PG Science College

Raipur, (C.G.)

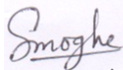


(Dr.Ranjana Shrivastava)

Proff. & Head

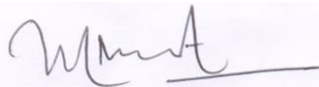
Govt. VYTPG Science College

Raipur, (C.G.)



(Mrs. Sanchal Moghe)

Govt. Bilasa Girls College, Bilaspur



(Mr. Shivakant Mishra)

(Mr Sudheer Tiwari)

B.Sc.-I (BOTANY) PAPER –II
(BRYOPHYTES, PTERIDOPHYTES, GYMNOSPERMS AND
PALAEOBOTANY)

UNIT –I

BRYOPHYTA: General characteristics, affinities, range of thallus organization, general classification and economic & ecological importance, Systematic position, occurrence, morphology anatomy and reproductive structure in *Riccia*, *Marchantia*, *Pellia*, *Anthoceros*, *Funaria*. Vegetative reproduction in Bryophytes, Evolution of sporophytes.

UNIT-II

PTERIDOPHYTES: General characteristics, affinities, economic importance and classification, Heterospory and seed habit, stellar system in Pteridophytes, Aposory and apogamy, Telome theory, *Azolla* as Biofertilizer.

UNIT-III

Systematic position, occurrence. Morphology, anatomy and reproductive structure of *Psilotum*, *Lycopodium*, *selaginella*, *Equisetum*, *Marsilea*.

UNIT-IV

Gymnosperm: General characteristics, affinities, economic importance and classification, Morphology, anatomy and reproduction in *Cycas*, *Pinus* and *Ephedra*.

UNIT-V

PALAEOBOTANY: Geological time scale, types of fossils and fossilization, Rhynia, study of some fossil gymnosperms. *Lygenopteris*

Books Recommended:

Parihar, N.S. *The Biology and Morphology of Pteridophytes*, Central Book Depot, Allahabad.

Parihar, N.S. *An introduction to Bryophyta Vol.I: Bryophytes* Central Book Depot, Allahabad.

Sambamurty, AVSS, *A textbook of Bryophytes, Pteridophytes, Gymnosperms and Palaeobotany*, IK International Publishers.

Pandey SN, Mishra SP and Trivedi PS *A text Book of Botany (Vol.II)*, Vikas Publishing, New Delhi

Bhatanagar, SP and Moitra, A. *Gymnosperm*, New Age International (P) Ltd., Publishers, New Delhi

Biswas C. and Johri BM, *The Gymnosperms*, Springer-Verlag, Germany.

Srivastava, HN, *Palaeobotany*, Pradeep Publications Jalandhar

Srivastava, HN, Bryophyta, Pradeep Publications Jalandhar

Singh, Pandey and Jain, *A Text Book of Botany*, Rastogi Publication, Meerut

Srivastava, HN, *Fundamentals of Pteridophytes*, Pradeep Publications, Jalandhar

B.Sc. I (BOTANY)

PRACTICAL

Study of external (Morphological) and internal (microscopic/anatomical) features of representative genera given in the theory.

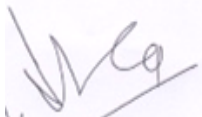
1. Algae: Gloeocapsa, Scytonema, Gloeotrichia, Volvox, Oedogonium, Vaucheria, Chara, Ectocarpus, Sargassum, Batrachospermum
2. Gram staining
3. Fungi: Albugo, Aspergillus, Peziza, Agaricus, Puccinia, Alternaria and Cercospora
4. Bryophyta: Riccia, Marchantia, Pellia, Anthoceros, Sphagnum, Funaria
5. Pteridophyta: Lycopodium, Selaginella, Equisetum, Marsilea.
6. Gymnosperm: Cycas, Pinus, Ephedra.

PRACTICAL SCHEME

TIME: 4 Hrs.

M.M. : 50

1. Algae/Fungi/Gram Staining	10
2. Bryophyta/Pteridophyta	10
3. Gymnosperm	10
4. Spotting	10
5. Viva-Voce	05
6. Sessional	05

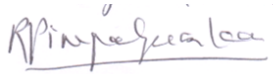


(Dr. J.N. Verma)

Proff. & Head

Govt. D.B. Girls PG College

Raipur, (C.G.)



(Dr. Rekha Pimpalgaonkar)

Proff. & Head

Govt. N PG Science College

Raipur, (C.G.)

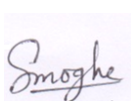


(Dr. Ranjana Shrivastava)

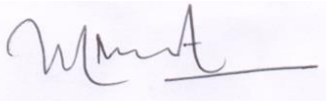
Proff. & Head

Govt. VYTPG Science College

Raipur, (C.G.)



(Mrs. Sanchal Moghe)



(Mr. Shivakant Mishra)

(Mr. Sudheer Tiwari)

Govt. Bilasa Girls College, Bilaspur

Zoology
B.Sc. Part I 2018-19
Paper I
(Cell Biology and Non-chordata)

Unit:I

1. The cell (Prokaryotic and Eukaryotic)
2. Organization of Cell: Extra-nuclear and nuclear
Plasma membrane, Mitochondria, Endoplasmic reticulum, Golgi body, Ribosome and Lysosome).
3. Nucleus, Chromosomes, DNA and RNA

Unit:II

1. Cell division (Mitosis and Meiosis).
2. An elementary idea of Cancer cells And Cell transformation.
3. An elementary idea of Immunity: Innate & Acquired Immunity, Lymphoid organs, Cells of Immune System, Antigen, antibody and their interactions

Unit:III

- General characters and classification of Phylum Protozoa, Porifera, and Coelenterata up to order.
- 2. Protozoa: Type study - Paramecium,
- 2. Porifera: Type study - Sycon.
- 3. Coelenterata: Type study - Obelia

Unit: IV

- General characters and classification of Phylum Platyhelminthes, Nematelminthes, Annelida and Arthropoda up to order.
- 2. Platyhelminthes and Nematelminthes: Type Study – Fasciola, Ascaris
- 3. Annelida: Type Study - Pheretima.
- 4. Arthropoda: Type Study - Palaemone.

Unit:V

- General characters and classification of Phylum Mollusca and Echinodermata up to order.
- 2. Mollusca: Type Study - Pila.
- 3. Echinodermata- Type Study- Asterias (Starfish).

Zoology
B.Sc. Part I 2018-19
Paper II
(Chordata and Embryology)

Unit:I

1. Classification of Hemichordata
2. Hemichordata- Type study-Balanoglossus
3. Classification of Chordates upto orders..
4. Protochordata-Type study - Amphioxus.
5. A comparative account of Petromyzon and Myxine.

Unit-II

1. Fishes-Skin & Scales, migration in fishes, Parental care in fish.
2. Amphibia-Parental care and Neoteny.
3. Reptilia- Poisonous & Non-poisonous Snakes, Poison apparatus, snake venom and Extinct Reptiles

Unit-:III

1. Birds- Flight Adaptation, Migration, and Perching mechanism, Discuss-Birds are glorified reptiles.
2. Mammals-Comparative account of Prototheria, Metatheria, Eutheria and Affinities.
3. Aquatic Mammals and their adaptations.

Unit:IV

1. Fertilization

2. Gametogenesis, Structure of gamete and Types of eggs
3. Cleavage
4. Development of Frog up to formation of three germ layers.
5. Parthenogenesis

Unit:V

1. Embryonic induction, Differentiation and Regeneration.
2. Development of Chick (a) up to formation of three germ layers, (2) Extra-embryonic membranes.
3. Placenta in mammals.

Zoology
B.Sc. Part I 2018-19
Practical

The practical work will, in general be based on the syllabus prescribed in theory and the candidates will be required to show knowledge of the following:-

- Dissection of Earthworm, Cockroach, Palaemon and Pila
- Minor dissection—appendages of Prawn & hastate plate, mouth parts of insects, radulla of Pila.

(Alternative methods: By Clay/Thermacol/drawing/Model etc.)

- Adaptive characters of Aquatic, terrestrial, aerial and desert animals.
- Museum specimen invertebrate
- Slides- Invertebrates, frog embryology, Chick embryology and cytology,

Scheme of Practical Exam

Time: 3hrs

1. Major Dissection	10 Marks
2. Minor Dissection	05 Marks
3. Comments on Excercise based on Adaptation	04 Marks
4. Cytological Preparation	05 Marks
5. Spots-8 (Slides-4, Specimens-4)	16 Marks
6. Sessional	10 Marks

B.Sc.-I
BIOTECHNOLOGY
PAPER – I
BIOCHEMISTRY, BIOSTATISTICS AND COMPUTERS

UNIT-I

1. Introduction to Biochemistry: History, Scope and Development.
2. Carbohydrates: Classification, Structure and Function of Mono, Oligo and Polysaccharides.
3. Lipids: Structure, Classification and Function.

UNIT –II

1. Amino acids and Proteins: Classification, Structure and Properties of amino acids, Types of Proteins and their Classification and Function.
2. Enzymes: Nomenclature and Classification of enzyme, Mechanism of enzyme action, Enzyme Kinetics and Factors affecting the enzymes action. Immobilization of enzyme and their application.

UNIT –III

1. Hormones: Plant Hormone-Auxin and Gibberellins and Animal Hormone-Pancreas and Thyroid.
2. Carbohydrates, Proteins and Lipid Metabolism - Glycolysis, Glycogenesis, Glyconeogenesis, Glycogenolysis and Krebs cycle. Electron Transport Chain and β -oxidation of Fatty acids.

UNIT-IV

1. Scope of Biostatistics, Samples and Population concept, Collection of data-sampling techniques, Processing and Presentation of data.
2. Measures of Central Tendency: Mean, Median and Mode and Standard Deviation.
3. Probability Calculation: Definition of probability, Theorem on total and compound probability.

UNIT-V

1. Computers - General introduction, Organization of computer, Digital and Analogue Computers and Computer Algorithm.
2. Concept of Hardware and Software, Input and Output Devices.
3. Application of computer in co-ordination of solute concentration, pH and Temperature etc., of a Fermenter in operation and Internet application.

List of Books

1. Nelson and Cox (2005) Principles of Biochemistry, Fourth Edition
2. Todd and Howards Mason (2004) Text book of Biochemistry, Fourth Edition
3. Lubert Stryer and Berg ((2004) Biochemistry, Fifth Edition
4. Diana Rain, Marni Ayers Barby - (2006) Textbook on Q level Programming. 4th Edition.
5. Karl Schwartz: (2006) Guide of Micro Soft. Marina Raod, 4th Edition.
6. E Balaguruswamy by Programming in BASIC (1991).
7. RC Campbell by Statistics for Biologists. .
8. P Cassel et al by Inside Microsoft Office,
9. Statistical Methods, GW Snedecor and WG Cochran.
10. AC Wardlaw by Practical Statistics for Experimental Biologists,
11. JHZar by Bio-statistical analysis
12. RR Sokal FJ Rohlf by Introduction to Biostatistics
13. L Y Kun (2003) Microbial Biotechnology: Principles and applications
14. Khan and Khanum (1994) Fundamental of Biostastics

B.Sc.-I
BIOTECHNOLOGY
PAPER-II
CELL BIOLOGY, GENETICS AND MICROBIOLOGY

UNIT-I

1. Concept of life, Cell as a basic unit of living system and Cell theory.
2. Diversity of Cell shape and size.
3. Prokaryotic cell structure: Function and ultra structure of cell (Gram positive and Gram negative Bacteria), Plasma membrane, Flagella, Pili, Endospore and Capsule.
4. Eukaryotic cell: Plant cell wall and Plasma membrane.

UNIT-II

1. Cytoplasm: Structure and Functions of Endoplasmic reticulum, Ribosome, Golgi complex, Lysosomes, Nucleus, Mitochondria and Chloroplast.
2. Cytoskeleton: Microtubules, Microfilaments and Intermediate filaments.
3. Cell division: Mitosis and Meiosis.
4. Programmed Cell Death.

UNIT-III

1. Mendel's Laws of Inheritance.
2. Linkage and Crossing over.
3. Chromosome variation in number and structure: Deletion, Duplication, Translocation, Inversion and Aneuploidy, Euploidy (Monoploidy and Polyploidy and its importance).

UNIT-IV

1. History, Scope and Development of Microbiology.
2. Basic techniques of Microbial Culture
3. Microbial Growth & Nutrition of Bacteria: Isolation, media sterilization- physical and chemical agents, pure culture-pour plate method, streak plate method and spread plate method.
4. General features and Economic importance of Fungi, Algae and Protozoa etc.

UNIT-V

1. Bacterial Reproduction: Conjugation, Transduction and Transformation.
2. Mycoplasma – History, Classification, Structure reproduction & Diseases.
3. Viruses – Basic features, Structure, Classification, Multiplication, Bacteriophages (Morphology, life cycle, infection and medicinal importance)

List of Books

1. C.B. Power- Cell biology, First Edition (2005), Himalaya Publishing House.
2. Gereld Karp - Dell and molecular biology, 4th Edition (2005)
3. P.K. Gupta - Cell and molecular biology, Second Edition (2003), Restogi publications.
4. C.B., Oowar - Cell biology, Third Edition (2005) Himalaya Publishing Hosue.
5. S.S. Purohit - Microbiology : Fundamentals and Applications, 6th Edition (2004)
6. R.C. Dubey and D.K. Maheshwari: Practical Microbiology. S.Chand Publication.
7. R.C. Dubey and D.K. Maheshwari, Microbiology (2006). S.Chand Publication.
8. Tortora, Funke and Case - Microbiology, An introduction, sixth Edition (1995), Benjamin/Cummings Publishing Company.
9. Prescott, Harlyey and Klein - Microbiology, Third Edition, Wm. C. Brown Publishers (1996).
10. P. Chakraoborthy - Textbook of microbiology, Second Edition (2007).
11. Prescott, Harley and Klein - Microbiology. Third Edition. Wm. C. Brown.
12. Microbial Genetics, David Freifelder, John F Cronan, Stanley R Maloy, Jones and Bartlett Publishers.
13. Elements of Human Genetics. I.I. cavalla-Sfoeza, WA Benjamin Advanced Book Program.
14. S.K Jadhav and P.K. Mahish (2018) Prayogtmak Jaivprodyogiki awam Sukshmjivigyan- Chhattisgarh Hindi Granth Academy, Raipur.

List of Practical's

MICROBIOLOGY AND BIOCHEMICAL TECHNIQUES

- (1) Laboratory rules, Tools, Equipment and Other requirements in Microbiological laboratory.**
- (2) Micrometry – Use of ocular & stage Micrometrer.**
- (3) Counting of bacteria by counting chamber, by plate count.**
- (4)Preparation of media and cultivation techniques:**
 - (a) Basic liquid media (broth)
 - (b) Basic Solid media, (agar slants and deep tubes)
 - (c) Demonstration of selective and differential media
 - (d) Isolation and enumeration of micro organisms
 - (e) Isolation from air and Soil
- (5)Smears and staining methods:**
 - (a) Preparation of bacterial smear
 - (b) Gram Negative & Positive staining
- (6)Methods of obtaining pure cultures**
 - (a) Streak plate method
 - (b) Pure plate method
 - (c) Spread plate method
 - (d) Broth cultures
- (7)Growth & Biochemical techniques**
 - (a) Determination of bacterial growth curve
 - (b) Amylase production test
 - (c) Cellulose production test
 - (d) Estimation of Sugar in given solution
 - (e) Extraction and separation of lipids
 - (f) Estimation of proteins
 - (h) Mitosis and Meiosis
- (8)Biostatistics:**
 - (a) By Manual and by computer.
 - (b) Problems on mean, mode and median.

SCHEME OF PRACTICAL EXAMINATION

Time – 4 hrs.

M. M.: 50

1. Experiment based on culture of micro-organisms	15 Marks
2. Bacterial growth/Staining techniques	10 Marks
3. Biochemical techniques	05 Marks
4. Bio statistics	05 Marks
5. Spotting	05 Marks
6. <i>Viva – Voce</i>	05 Marks
7. Record/Sessional	05 Marks

NEW CURRICULUM OF B.Sc. PART I

CHEMISTRY

The new curriculum will comprise of Three theory papers of 33, 33 and 34 marks each and practical work of 50 marks. The curriculum is to be completed in 180 working days as per the UGC norms & conforming to the directives of the Govt. of Chhattisgarh. The theory papers are of 60 hrs each duration and the practical work of 180 hrs duration.

PAPER I

INORGANIC CHEMISTRY

M.M.33

UNIT-I

A. ATOMIC STRUCTURE

Bohr's theory, its limitation and atomic spectrum of hydrogen atom. General idea of de-Broglie matter-waves, Heisenberg uncertainty principle, Schrödinger wave equation, significance of Ψ and Ψ^2 , radial & angular wave functions and probability distribution curves, quantum numbers, Atomic orbital and shapes of s, p, d orbitals, Aufbau and Pauli exclusion principles, Hund's Multiplicity rule, electronic configuration of the elements.

B. PERIODIC PROPERTIES

Detailed discussion of the following periodic properties of the elements, with reference to s and p-block. Trends in periodic table and applications in predicting and explaining the chemical behavior.

- Atomic and ionic radii,
- Ionization enthalpy,
- Electron gain enthalpy,
- Electronegativity, Pauling's, Mulliken's, Allred Rochow's scales.
- Effective nuclear charge, shielding or screening effect, Slater rules, variation of effective nuclear charge in periodic table.

UNIT-II

CHEMICAL BONDING I

Ionic bond: Ionic Solids - Ionic structures, radius ratio & co-ordination number, limitation of radius ratio rule, lattice defects, semiconductors, lattice energy Born- Haber cycle, Solvation

energy and solubility of ionic solids, polarising power & polarisability of ions, Fajans rule, Ionic character in covalent compounds: Bond moment and dipole moment, Percentage ionic character from dipole moment and electronegativity difference, Metallic bond-free electron, Valence bond & band theories.

UNIT-III

CHEMICAL BONDING II

Covalent bond: Lewis structure, Valence bond theory and its limitations, Concept of hybridization, Energetics of hybridization, equivalent and non-equivalent hybrid orbitals. Valence shell electron pair repulsion theory (VSEPR), shapes of the following simple molecules and ions containing lone pairs and bond pairs of electrons: H_2O , NH_3 , PCl_3 , PCl_5 , SF_6 , H_3O^+ , SF_4 , ClF_3 , and ICl_2^- Molecular orbital theory. Bond order and bond strength, Molecular orbital diagrams of diatomic and simple polyatomic molecules N_2 , O_2 , F_2 , CO , NO .

UNIT-IV

A. s-BLOCK ELEMENTS

General concepts on group relationships and gradation properties, Comparative study, salient features of hydrides, solvation & complexation tendencies including their function in biosystems and introduction to alkyl & aryls, Derivatives of alkali and alkaline earth metals

B. p-BLOCK ELEMENTS

General concepts on group relationships and gradation properties. Halides, hydrides, oxides and oxyacids of Boron, Aluminum, Nitrogen and Phosphorus. Boranes, borazines, fullerenes, graphene and silicates, interhalogens and pseudohalogens.

UNIT-V

A CHEMISTRY OF NOBLE GASES

Chemical properties of the noble gases, chemistry of xenon, structure, bonding in xenon compounds

B. THEORETICAL PRINCIPLES IN QUALITATIVE ANALYSIS (H_2S SCHEME)

Basic principles involved in the analysis of cations and anions and solubility products, common ion effect. Principles involved in separation of cations into groups and choice of group reagents. Interfering anions (fluoride, borate, oxalate and phosphate) and need to remove them after Group II.

REFERENCE BOOKS:

1. Lee, J. D. Concise Inorganic Chemistry ELBS, 1991.
2. Douglas, B.E. and McDaniel, D.H. Concepts & Models of Inorganic Chemistry Oxford, 1970
3. Atkins, P.W. & Paula, J. Physical Chemistry, 10th Ed., Oxford University Press, 2014.
4. Day, M.C. and Selbin, J. Theoretical Inorganic Chemistry, ACS Publications, 1962.
5. Rodger, G.E. Inorganic and Solid State Chemistry, Cengage Learning India Edition, 2002.
6. Puri, B. R., Sharma, L. R. and Kalia, K. C., Principles of Inorganic Chemistry, Milestone Publishers/ Vishal Publishing Co.; 33rd Edition 2016
7. Madan, R. D. Modern Inorganic Chemistry, S Chand Publishing, 1987.

PAPER: II

ORGANIC CHEMISTRY

UNIT-I BASICS OF ORGANIC CHEMISTRY

Hybridization, Shapes of molecules, Influence of hybridization on bond properties. Electronic Displacements: Inductive, electromeric, resonance and mesomeric effects, hyperconjugation and their applications; Dipole moment. Electrophiles and Nucleophiles; Nucleophilicity and basicity; Homolytic and Heterolytic cleavage, Generation, shape and relative stability of Carbocations, Carbanions, Free radicals, Carbenes and Nitrenes. Introduction to types of organic reactions: Addition, Elimination and Substitution reactions.

UNIT-II INTRODUCTION TO STEREOCHEMISTRY

Optical Isomerism: Optical Activity, Specific Rotation, Chirality/Asymmetry, Enantiomers, Molecules with two or more chiral-centres, Diastereoisomers, meso compounds, Relative and absolute configuration: Fischer, Newmann and Sawhorse Projection formulae and their interconversions; Erythrose and threose, D/L, d/l system of nomenclature, Cahn-Ingold-Prelog system of nomenclature (C.I.P rules), R/S nomenclature. Geometrical isomerism: cis–trans, syn-anti and E/Z notations.

UNIT-III CONFORMATIONAL ANALYSIS OF ALKANES

Conformational analysis of alkanes, ethane, butane, cyclohexane and sugars. Relative stability and Energy diagrams. Types of cycloalkanes and their relative stability, Baeyer strain theory: Theory of strainless rings, Chair, Boat and Twist boat conformation of cyclohexane with energy diagrams; Relative stability of mono-substituted cycloalkanes and disubstituted cyclohexane.

UNIT-IV CHEMISTRY OF ALIPHATIC HYDROCARBONS

A. Carbon-Carbon sigma (σ) bonds

Chemistry of alkanes: Formation of alkanes, Wurtz Reaction, Wurtz-Fittig Reaction, Free radical substitutions: Halogenation-relative reactivity and selectivity.

B. Carbon-Carbon Pi (π) bonds:

Formation of alkenes and alkynes by elimination reactions, Mechanism of E1, E2, E1cb reactions. Saytzeff and Hofmann eliminations.

Reactions of alkenes: Electrophilic additions and mechanisms (Markownikoff/ Anti - Markownikoff addition), mechanism of oxymercuration-demercuration, hydroboration-oxidation, ozonolysis, reduction (catalytic and chemical), syn and anti-hydroxylation (oxidation). 1,2-and 1,4-addition reactions in conjugated dienes and, Diels-Alder reaction; Allylic and benzylic bromination and mechanism, e.g. propene, 1-butene, toluene, ethyl benzene.

Reactions of alkynes: Acidity, Electrophilic and Nucleophilic additions. Hydration to form carbonyl compounds, Alkylation of terminal alkynes.

UNIT-V AROMATIC HYDROCARBONS

Aromaticity: Hückel's rule, aromatic character of arenes, cyclic carbocations/ carbanions and heterocyclic compounds with suitable examples. Electrophilic aromatic substitution: halogenation, nitration, sulphonation and Friedel-Craft's alkylation/acylation with their mechanism. Directive effects of the groups.

REFERENCE BOOKS:

1. Morrison, R. N. & Boyd, R. N. Organic Chemistry, Dorling Kindersley (India) Pvt. Ltd.(Pearson Education).
2. Finar, I. L. Organic Chemistry (Volume 1), Dorling Kindersley (India) Pvt. Ltd. (Pearson Education).
3. Finar, I. L. Organic Chemistry (Volume 2: Stereochemistry and the Chemistry of Natural Products), Dorling Kindersley (India) Pvt. Ltd. (Pearson Education).
4. Eliel, E. L. & Wilen, S. H. Stereochemistry of Organic Compounds, Wiley: London, 1994.

5. Kalsi, P. S. Stereochemistry Conformation and Mechanism, New Age International, 2005.
6. McMurry, J.E. Fundamentals of Organic Chemistry, 7th Ed. Cengage Learning India Edition, 2013.
7. Organic Chemistry, Paula Y. Bruice, 2nd Edition, Prentice-Hall, International Edition (1998).
8. A Guide Book of Reaction Mechanism by Peter Sykes.

PAPER - III

PHYSICAL CHEMISTRY

M.M.34

UNIT-I

MATHEMATICAL CONCEPTS FOR CHEMIST

Basic Mathematical Concepts: Logarithmic relations, curve sketching, linear graphs, Properties of straight line, slope and intercept, Functions, Differentiation of functions, maxima and minima; integrals; ordinary differential equations; vectors and matrices; determinants; Permutation and combination and probability theory, Significant figures and their applications.

UNIT-II

GASEOUS STATE CHEMISTRY

Kinetic molecular model of a gas: postulates and derivation of the kinetic gas equation; collision frequency; collision diameter; mean free path; Maxwell distribution and its use in evaluating molecular velocities (average, root mean square and most probable) and average kinetic energy, law of equipartition of energy, degrees of freedom and molecular basis of heat capacities. Joule Thompson effect, Liquification of Gases.

Behaviour of real gases: Deviations from ideal gas behaviour, compressibility factor (Z), and its variation with pressure and temperature for different gases. Causes of deviation from ideal behaviour. van der Waals equation of state, its derivation and application in explaining real gas behaviour, calculation of Boyle temperature. Isotherms of real gases and their comparison with van der Waals isotherms, continuity of states, critical state, relation between critical constants and van der Waals constants, law of corresponding states.

UNIT-III

A. LIQUID STATE CHEMISTRY

Intermolecular forces, magnitude of intermolecular force, structure of liquids, Properties of liquids, viscosity and surface tension.

B. COLLOIDS and SURFACE CHEMISTRY

Classification, Optical, Kinetic and Electrical Properties of colloids, Coagulation, Hardy Schulze law, flocculation value, Protection, Gold number, Emulsion, micelles and types, Gel, Syneresis and thixotrophy, Application of colloids.

Physical adsorption, chemisorption, adsorption isotherms (Langmuir and Freundlich). Nature of adsorbed state. Qualitative discussion of BET.

UNIT-IV

SOLID STATE CHEMISTRY

Nature of the solid state, law of constancy of interfacial angles, law of rational indices, Miller indices, elementary ideas of symmetry, symmetry elements and symmetry operations, qualitative idea of point and space groups, seven crystal systems and fourteen Bravais lattices; X-ray diffraction, Bragg's law, a simple account of rotating crystal method and powder pattern method. Crystal defects.

UNIT-V

A. CHEMICAL KINETICS

Rate of reaction, Factors influencing rate of reaction, rate law, rate constant, Order and molecularity of reactions, rate determining step, Zero, First and Second order reactions, Rate and Rate Law, methods of determining order of reaction, Chain reactions.

Temperature dependence of reaction rate, Arrhenius theory, Physical significance of Activation energy, collision theory, demerits of collision theory, non mathematical concept of transition state theory.

B. CATALYSIS

Homogeneous and Heterogeneous Catalysis, types of catalyst, characteristic of catalyst, Enzyme catalysed reactions, Micellar catalysed reactions, Industrial applications of Catalysis.

REFERENCE BOOKS:

1. Atkins, P. W. & Paula, J. de Atkin's Physical Chemistry 10th Ed., Oxford University Press (2014).

- Ball, D. W. Physical Chemistry Thomson Press, India (2007).
- Castellan, G. W. Physical Chemistry 4th Ed. Narosa (2004).
- Mortimer, R. G. Physical Chemistry 3rd Ed. Elsevier: NOIDA, UP (2009).
- Engel, T. & Reid, P. Physical Chemistry 3rd Ed. Pearson (2013).
- Puri, B.R., Sharma, L. R. and Pathania, M.S., Principles of Physical Chemistry, Vishal Publishing Co., 47th Ed. (2016).
- Bahl, A., Bahl, B.S. and Tuli, G.D. Essentials of Physical Chemistry, S Chand Publishers (2010).
- Rakshit P.C., Physical Chemistry, Sarat Book House Ed. (2014).
- Singh B., Mathematics for Chemist, Pragati Publications.

PAPER - IV

LABORATORY COURSE

INORGANIC CHEMISTRY

A. Semi-micro qualitative analysis (using H₂S or other methods) of mixtures - not more than four ionic species (two anions and two cations, excluding interfering, insoluble salts) out of the following:

Cations : NH₄⁺, Pb²⁺, Bi³⁺, Cu²⁺, Cd²⁺, Fe³⁺, Al³⁺, Co²⁺, Ni²⁺, Mn²⁺, Zn²⁺, Ba²⁺, Sr²⁺, Ca²⁺, Na⁺
 Anions : CO₃²⁻, S²⁻, SO₃²⁻, S₂O₃²⁻, NO₂⁻, CH₃COO⁻, Cl⁻, Br⁻, I⁻, NO₃⁻, SO₄²⁻

(Spot tests may be carried out wherever feasible)

B. Acid-Base Titrations

- Standardization of sodium hydroxide by oxalic acid solution.
- Determination of strength of HCl solution using sodium hydroxide as intermediate.
- Estimation of carbonate and hydroxide present together in mixture.
- Estimation of carbonate and bicarbonate present together in a mixture.
- Estimation of free alkali present in different soaps/detergents

C. Redox Titrations

- Standardization of KMnO₄ by oxalic acid solution.
- Estimation of Fe(II) using standardized KMnO₄ solution.
- Estimation of oxalic acid and sodium oxalate in a given mixture.
- Estimation of Fe(II) with K₂Cr₂O₇ using internal (diphenylamine, anthranilic acid) and external indicator.

D. Iodo / Iodimetric Titrations

- Estimation of Cu(II) and K₂Cr₂O₇ using sodium thiosulphate solution iodimetrically.
- Estimation of (a) arsenite and (b) antimony iodimetrically.

- Estimation of available chlorine in bleaching powder iodometrically.
- Estimation of Copper and Iron in mixture by standard solution of $K_2Cr_2O_7$ using sodium thiosulphate solution as titrants.

ORGANIC CHEMISTRY

1. Demonstration of laboratory Glasswares and Equipments.
2. Calibration of the thermometer. 80° – 82° (Naphthalene), 113.5° – 114° (Acetanilide), 132.5° – 133° (Urea), 100° (Distilled Water).
3. Purification of organic compounds by crystallization using different solvents.
 - Phthalic acid from hot water (using fluted filter paper and stemless funnel).
 - Acetanilide from boiling water.
 - Naphthalene from ethanol.
 - Benzoic acid from water.
4. Determination of the melting points of organic compounds.
Naphthalene 80° – 82° , Benzoic acid 121.5° – 122° , Urea 132.5° – 133° , Succinic acid 184.5° – 185° , Cinnamic acid 132.5° – 133° , Salicylic acid 157.5° – 158° , Acetanilide 113.5° – 114° , m-Dinitrobenzene 90° , p-Dichlorobenzene 52° , Aspirin 135° .
5. Effect of impurities on the melting point – mixed melting point of two unknown organic compounds.
 - Urea – Cinnamic acid mixture of various compositions (1:4, 1:1, 4:1).
6. Determination of boiling point of liquid compounds. (boiling point lower than and more than $100^\circ C$ by distillation and capillary method).
 - Ethanol 78° , Cyclohexane 81.4° , Toluene 110.6° , Benzene 80° .
- i. Distillation (Demonstration)
 - Simple distillation of ethanol-water mixture using water condenser.
 - Distillation of nitrobenzene and aniline using air condenser.
- ii. Sublimation
 - Camphor, Naphthalene, Phthalic acid and Succinic acid.
- iii. Decolorisation and crystallization using charcoal.
 - Decolorisation of brown sugar with animal charcoal using gravity filtrations crystallization and decolorisation of impure naphthalene (100 g of naphthalene mixed with 0.3 g of Congo red using 1 g of decolorizing carbon) from ethanol.
7. Qualitative Analysis

Detection of elements (N, S and halogens) and functional groups (Phenolic, Carboxylic, Carbonyl, Esters, Carbohydrates, Amines, Amides, Nitro and Anilide) in simple organic compounds.

PHYSICAL CHEMISTRY

1. Surface tension measurements.
 - Determine the surface tension by (i) drop number (ii) drop weight method.
 - Surface tension composition curve for a binary liquid mixture.
2. Viscosity measurement using Ostwald's viscometer.
 - Determination of viscosity of aqueous solutions of (i) sugar (ii) ethanol at room temperature.
 - Study of the variation of viscosity of sucrose solution with the concentration of solute.
 - Viscosity Composition curve for a binary liquid mixture.
3. Chemical Kinetics
 - To determine the specific rate of hydrolysis of methyl/ethyl acetate catalysed by hydrogen ions at room temperature.
 - To study the effect of acid strength on the hydrolysis of an ester.
 - To compare the strengths of HCl & H₂SO₄ by studying the kinetics of hydrolysis of ethyl acetate.
4. Colloids
 - To prepare colloidal solution of silver nanoparticles (reduction method) and other metal nanoparticles using capping agents.

Note: Experiments may be added/ deleted subject to availability of time and facilities

PRACTICAL EXAMINATION

05 Hrs.
M.M. 50

Three experiments are to be performed

1. Inorganic Mixture Analysis, four radicals two basic & two acid (excluding insoluble, Interfering & combination of acid radicals) OR Two Titrations (Acid-Bases, Redox and Iodo/Iodimetry)

12 marks

2. Detection of functional group in the given organic compound and determine its MPt/BPt.

8 marks

O R

Crystallization of any one compound as given in the prospectus along with the determination of mixed MPt.

O R

Decolorisation of brown sugar along with sublimation of camphor/ Naphthlene.

3. Any one physical experiment that can be completed in two hours including calculations.

14 marks

4. Viva

10 marks

5. Sessionals

06 marks

In case of Ex-Students two marks will be added to each of the experiments

REFERENCE TEXT:

1. Mendham, J., A. I. Vogel's Quantitative Chemical Analysis 6th Ed., Pearson, 2009.
2. Ahluwalia, V. K., Dhingra, S. and Gulati, A. College practical Chemistry, University Press.
3. Mann, F.G. & Saunders, B.C. Practical Organic Chemistry, Pearson Education (2009)
4. Furniss, B.S.; Hannaford, A.J.; Smith, P.W.G.; Tatchell, A.R. Practical Organic Chemistry, 5th Ed., Pearson (2012)
5. Khosla, B. D.; Garg, V. C. & Gulati, A. Senior Practical Physical Chemistry, R. Chand & Co.: New Delhi (2011).
6. Garland, C. W.; Nibler, J. W. & Shoemaker, D. P. Experiments in Physical Chemistry 8th Ed.; McGraw-Hill: New York (2003).
7. Halpern, A. M. & McBane, G. C. Experimental Physical Chemistry 3rd Ed.; W.H. Freeman & Co.: New York (2003).

प्रपत्र

विषय/संकाय/प्रश्न-पत्र का नाम- **B.Sc. Computer Science**

क्रमांक	कक्षा का नाम	वर्तमान पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम का औचित्य
1.	1 st Year	COMPUTER HARDWARE	COMPUTER FUNDAMENTAL	Updation Required
2.	1 st Year	COMPUTER SOFTWARE	PROGRAMMING IN 'C' LANGUAGE	Updation Required
3.	1 st Year	PRACTICAL	PRACTICAL	Updation Required
4.	2 nd Year	COMPUTER HARDWARE	COMPUTER HARDWARE	No Change
5.	2 nd Year	COMPUTER SOFTWARE	COMPUTER SOFTWARE	No Change
6.	2 nd Year	PRACTICAL	PRACTICAL	No Change
7.	3 rd Year	COMPUTER HARDWARE	COMPUTER HARDWARE	No Change
8.	3 rd Year	COMPUTER SOFTWARE	COMPUTER SOFTWARE	No Change
9.	3 rd Year	PRACTICAL	PRACTICAL	No Change

केन्द्रीय अध्ययन मंडल के अध्यक्ष एवं सदस्यों का हस्ताक्षर

S.N.	Name	Designation/University/College	Signature with Date
1.	Dr. Sanjay Kumar	Head, S.o.S. in Computer Science & I.T., Pt. R.S. University, Raipur	 11/06/2018
2.	Mr. Hari Shankar Prasad Tonde	Head, Dept. of Computer Science, Sarguja University, Ambikapur	 11.06.18
3.	Dr. Anuj Kumar Dwivedi	Head, Dept. of Computer Science, Govt. V.B.S.D. Girls College, Jashpur Nagar, Jashpur	 11/6/18
4.	Mr. L.K. Gavel	Head, Dept. of Computer Science, Govt. G.S.G. P.G. College Balod	 11/06/18
5.	Dr. J. Durga Prasad Rao	Head, Dept. of Computer Science, Shri Sankracharya Mahavidyalaya, Bhilai	 11/6/18

B.Sc. (CS)
I Year

**B.Sc. PART - I
COMPUTER SCIENCE
PAPER - I
COMPUTER FUNDAMENTAL
(PAPER CODE - 0805)**

Max Marks: 50

NOTE: The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice.

UNIT - I Classification and Organization of Computers

History of computer, Generation of computer, Calculator vs. Computer, Digital and Analog computers and its evolution, Major components of digital computers; Memory addressing capability of CPU, Word length and processing speed of computes, Microprocessors, Single chip Microcomputer, Large and small computers, Users interface, Hardware, software and firmware, multi programming multi user system, Dumb smart and intelligent terminals, computer network and multi-processing, LAN parallel processing, Flynn's classification of computers, Control flow and data flow computers

UNIT - II Central Processing Unit

Parts of CPU- ALU, Control Unit, Registers; Architecture of Intel 8085 microprocessor, Instructions for Intel 8085 microprocessor, Instruction Word size, Various addressing mode, Interrupts, Some special Control signals, Instruction cycle, fetch and execute operation, Timing Diagram, Instruction flow and data flow.

UNIT - III Memory

Memory hierarchy, Primary and Secondary Memory, Cache memory, Virtual Memory, Direct Access Storage Devices (DASD), Destructive and Nondestructive Readout, Program and data Memory, Memory Management Unit (MMU), PCMCIA Cards and Slots.

UNIT - IV I/O Devices

I/O devices- Keyboard, Mouse, Monitor, Impact and Non-Impact Printers, Plotter, Scanner, other Input/output devices; Scan method of Display- Raster Scan, Vector Scan, Bit Mapped Scan, CRT Controller, I/O Port- Programmable and Non Programmable I/O ports, Inbuilt I/O ports- Parallel and Serial ports, USB, IEEE 1394, AGP, Serial data transfer scheme, Micro controller, Signal Processor, I/O processor, Arithmetic Processor.

UNIT-V SOFTWARE AND PROGRAMMING TECHNIQUES

Application and System Software: Introduction, Example, Difference etc., Introduction to Open Source Software such as Unix/Linux (Ubuntu), Libre office etc., Introduction to Machine Language, Assembly Language and High Level Language; Programming Techniques, Stack, Subroutine, Debugging of programs, Macro, Program Design, Software development, Flow Chart, Multi programming, Multiuser, Multitasking Protection, Operating system and Utility programs, Application packages.

TEXT BOOKS:

1. Computer Fundamentals, P. K. Sinha, BPB Publications, Sixth Edition.
2. Computer Fundamentals Architecture and Organization, B. Ram, New Age International Publishers, Fifth Edition.
3. Fundamentals of Computers, V. Rajaraman, PHI, Sixth Edition.
4. Computers Today, Donald H. Sanders, McGraw-Hill, Third Edition.
5. IBM PC and Clones, B Govindarajalu, McGraw-Hill, Second Edition
6. UNIX Concepts and Applications, Sumitabha Das, Tata McGraw-Hill, Fourth Edition.

Sinner
11-06-18
(Dr. Vijay Kumar)

Gaur
11/06/18
(C.K. Gaur)

JMP
11-06-18
Hasi Shankar Prasad Tande

Anurag
11/6/18
(Dr. A.K. Desai)

Pranav
11/6/18
(Dr. Dnyaneshwar)

B.Sc. PART - I
COMPUTER SCIENCE
PAPER II
PROGRAMMING IN 'C' LANGUAGE
(Paper Code - 0806)

Max Marks: 50

NOTE: The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice.

UNIT-I

Fundamentals of C Programming: Overview of C: History of 'C', Structure of 'C' program. Keywords, Tokens, Data types, Constants, Literals and Variables, Operators and Expressions: Arithmetic operators, Relational operator, Logical operators, Expressions, Operator: operator precedence and associativity, Type casting, Console I/O formatting, Unformatted I/O functions: getch(), getchar(), getche(), getc(), puts(), putchar().

UNIT- II

Control Constructs: If-else, conditional operators, switch and break, nested conditional branching statements, loops: do while, while, for, Nested loops, break and continue, goto and label, exit function.
Functions: Definition, function components: Function arguments, return value, function call statement, function prototype, Types of function, Scope and lifetime of variable, Call by value and call by reference. Function using arrays, function with command line argument. User defined function: maths and character functions, Recursive function.

UNIT-III

Array: Array declaration, One and Two dimensional numeric and character arrays, Multidimensional arrays.
String: String declaration, initialization, string manipulation with/without using library function.
Structure, Union and Enum - Structure: Basics, declaring structure and structure variable, typedef statement, array of structure, array within structure, Nested structure; passing structure to function, function returning structure. **Union:** basics, declaring union and union variable, **Enum:** declaring enum and enum variable.

UNIT- IV

Pointer: Definition of pointer, Pointer declaration, Using & and * operators. Void pointer, Pointer to pointer, Pointer in math expression, Pointer arithmetic, Pointer comparison, Dynamic memory allocation functions – malloc, calloc, realloc and free, Pointer vs. Array, Array of pointer, Pointer to array, Pointers to function, Function returning pointer, Passing function as Argument to function, Pointer to structure, Dynamic array of structure through pointer to structure.

UNIT-V

File Handling and Miscellaneous Features: File handling: file pointer, File accessing functions: fopen, fclose, fputc, fgetc, fprintf, fscanf, fread, fwrite, fflush, rewind, fseek, ferror. File handling through command line argument. Introduction to C preprocessor #include, #define, Conditional compilation directives: #if, #else, #elif, #endif, #ifndef etc.

TEXT BOOKS:

1. Programming in ANSI C, E Balagurusamy, Tata McGraw-Hill, Third Edition.
2. Let Us C, Yashwant Kanetkar, Infinity Science Press, Eighth Edition.
3. Mastering C, K R Venugopal, Tata McGraw-Hill.
4. The C Programming Language, Brian W. Kernighan, Dennis M. Ritchie, Prentice Hall, Second Edition.
5. Applications Programming in ANSI C, R. Johnsonbaugh, Martin Kalin, Macmillan, Second Edition.
6. The Spirit of C, Mullish Cooper, Jaico publishing House.
7. How to solve it by Computer, R.G Dromey, Pearson Education.

Sumer
11-06-2018
(Dr. Sumer Kumar)

Gavel
11/06/18
(Dr. K. Gavel)

JMP
11-06-18
Hemant Shankar Prasad Tandi

Anuj
11/6/18
(Dr. A.K. Drai Vadi)
Dr. J. Durga
(Dr. J. Durga)

Practical

- At least 20 Practical based on Syllabus of Paper-I and Paper-II.

Somas
11-06-2018
(Dr. Sanjay Kumar)

Anuj
11/6/2018
(Dr. A.K. Dainedi)

Gaurl
11/6/18
(L.K. Gavel)

Jhu
11/6/18
(Dr. J. D. Jhu)

JSP
Tandl
11-06-18
Hari Shankar Prasad Tandl

Syllabus

B . S c . P a r t I

ELECTRONICS

Paper-I

ELB-101: NETWORK ANALYSIS AND ANALOG ELECTRONICS

Theory:

Maximum Marks 50

Unit-1

Basic Circuit Concepts: Voltage and Current Sources, Review of Resistors, Inductors, Capacitors. Circuit Analysis: Kirchhoff's Current Law (KCL), Kirchhoff's Voltage Law (KVL),
AC Circuit Analysis: Sinusoidal Voltage and Current, Definition of Instantaneous, Peak, Peak to Peak, Root Mean Square and Average Values. AC applied to Series RC and RL circuits: Impedance of series RC & RL circuits. AC applied to Series and parallel RLC circuit, Series and Parallel Resonance, condition for Resonance, Resonant Frequency, Bandwidth, and significance of Quality Factor (Q).

Passive Filters: Low Pass, High Pass.

Network Theorems: Principal of Duality, Superposition Theorem, Thevenin's Theorem, Norton's Theorem, Reciprocity Theorem, Millman's Theorem, Maximum Power Transfer Theorem. AC circuit analysis using Network theorems.

Unit-2

Junction Diode and its applications: PN junction diode (Ideal and practical)-constructions, Formation of Depletion Layer, Diode Equation and I-V characteristics. Idea of static and dynamic resistance, dc load line analysis, Quiescent (Q) point. Zener diode, Reverse saturation current, Zener and avalanche breakdown. Rectifiers- Half wave rectifier, Full wave rectifiers (center tapped and bridge), circuit diagrams, working and waveforms, ripple factor and efficiency. Filter-Shunt capacitor filter, its role in power supply, output waveform, and working. Regulation- Line and load regulation, Zener diode as voltage regulator, and explanation for load and line regulation.

Unit-3

Bipolar Junction Transistor: CE, CB Characteristics and regions of operation, Transistor biasing, DC load line, operating point, thermal runaway, idea about stability and stability factor. Voltage divider bias, circuit diagrams and their working.

Field Effect Transistors: JFET, Construction, Working and Characteristics. MOSFET, Construction, Working and Characteristics.

Power Devices: UJT, Construction, Working and Characteristics. SCR, Diac, Triac, Construction, Working and Characteristics and Applications.

Unit-4

Amplifiers: Transistor biasing and Stabilization circuits- Fixed Bias and Voltage Divider Bias. Thermal runaway, stability and stability factor S. Transistor as a two port network, h-parameter equivalent circuit. Small signal analysis of single stage CE amplifier. Input and Output impedance, Current and Voltage gains. Class A, B and C Amplifiers.

Cascaded Amplifiers: Two stage RC Coupled Amplifier and its Frequency Response.

Unit-5

Feedback in Amplifiers: Concept of feedback, negative and positive feedback, advantages of negative feedback (Qualitative only).

Sinusoidal Oscillators: Barkhausen criterion for sustained oscillations. Phase shift, Wein bridge, Crystal and Colpitt's oscillator. Determination of Frequency and Condition of oscillation.

Reference Books:

- [1] Electric Circuits, S. A. Nasar, Schaum's outline series, Tata McGraw Hill (2004)
- [2] Electrical Circuits, M. Nahvi & J. Edminister, Schaum's Outline Series, Tata McGraw-Hill (2005)
- [3] Electrical Circuits, K.A. Smith and R.E. Alley, 2014, Cambridge University Press
- [4] Network, Lines and Fields, J.D. Ryder, Prentice Hall of India.
- [5] Electronic Devices and Circuits, David A. Bell, 5th Edition 2015, Oxford University Press.
- [6] Electronic Circuits: Discrete and Integrated, D.L. Schilling and C. Belove, Tata McGraw Hill
- [7] Electrical Circuit Analysis, Mahadevan and Chitra, PHI Learning
- [8] Microelectronic circuits, A.S. Sedra, K.C. Smith, A.N. Chandorkar, 2014, 6th Edn., Oxford University Press.
- [9] J. Millman and C. C. Halkias, Integrated Electronics, Tata McGraw Hill (2001)
- [10] J. J. Cathey, 2000 Solved Problems in Electronics, Schaum's outline Series, Tata McGraw Hill (1991)

Paper- II

ELB-102: LINEAR AND DIGITAL INTEGRATED CIRCUITS

Theory:

Maximum Marks 50

Unit-1

Operational Amplifiers (Black box approach): Characteristics of an Ideal and Practical Operational Amplifier (IC 741), Open and closed loop configuration, Frequency Response. CMRR. Slew Rate and concept of Virtual Ground.

Applications of Op-Amps: (1) Inverting and non-inverting amplifiers, (2) Summing and Difference Amplifier, (3) Differentiator, (4) Integrator, (5) Wein bridge oscillator, (6) Comparator and Zero-crossing detector, and (7) Active low pass and high pass, Butterworth filter (1st order only).

Unit-2

Number System and Codes: Decimal, Binary, Octal and Hexadecimal number systems, base conversions. Representation of signed and unsigned numbers, BCD code. Binary, octal and hexadecimal arithmetic; addition, subtraction by 2's complement method, multiplication.

Logic Gates and Boolean algebra: Truth Tables of OR, AND, NOT, NOR, NAND, XOR, XNOR, Universal Gates, Basic postulates and fundamental theorems of Boolean algebra.

Unit-3

Combinational Logic Analysis and Design: Standard representation of logic functions (SOP and POS), Minimization Techniques (Karnaugh map minimization up to 4 variables for SOP). Arithmetic Circuits: Binary Addition. Half and Full Adder. Half and Full Subtractor, 4-bit binary Adder/Subtractor.

Data processing circuits: Multiplexers, De-multiplexers, Decoders, Encoders. Clock and Timer (IC 555): Introduction, Block diagram of IC 555, Astable and Monostable multivibrator circuits.

Unit-4

Sequential Circuits: SR, D, and JK Flip-Flops. Clocked (Level and Edge Triggered) Flip-Flops. Preset and Clear operations. Race-around conditions in JK Flip-Flop. Master-slave JK Flip-Flop.

Shift registers: Serial-in-Serial-out, Serial-in-Parallel-out, Parallel-in-Serial-out and Parallel-in-Parallel-out Shift Registers (only up to 4 bits).

Counters (4 bits): Ring Counter. Asynchronous counters, Decade Counter Synchronous Counter.

Unit-5

D-A and A-D Conversion: 4 bit binary weighted and R-2R D-A converters, circuit and working, Accuracy and Resolution. A-D conversion characteristics, successive approximation ADC. (Mention of relevant ICs for all).

Reference Books:

- [1] OP-Amps and Linear Integrated Circuit, R. A. Gayakwad, 4th edition, 2000, Prentice Hall
 - [2] Operational Amplifiers and Linear ICs, David A. Bell, 3rd Edition, 2011, Oxford University Press.
 - [3] Digital Principles and Applications, A.P. Malvino, D.P. Leach and Saha, 7th Ed., 2011, Tata McGraw
 - [4] Fundamentals of Digital Circuits, Anand Kumar, 2nd Edn, 2009, PHI Learning Pvt. Ltd.
 - [5] Digital Circuits and systems, Venugopal, 2011, Tata McGraw Hill.
 - [6] Digital Systems: Principles & Applications, R.J. Tocci, N.S. Widmer, 2001, PHI Learning.
 - [7] Thomas L. Floyd, Digital Fundamentals, Pearson Education Asia (1994)
 - [8] R. L. Tokheim, Digital Principles, Schaum's Outline Series, Tata McGraw- Hill (1994)
-

ELECTRONICS LABORATORY
ELB 103P: NETWORK ANALYSIS AND ANALOG ELECTRONICS LAB
(Hardware and Circuit Simulation Software) **Max.Marks:25**

The scheme of practical examination will be as follows-

Experiment	--	30
Viva	--	10
Sessional	--	10
Total	--	50

AT LEAST 06 EXPERIMENTS FROM THE FOLLOWING BESIDES #1

1. To familiarize with basic electronic components (R, C, L, diodes, transistors), digital Multimeter, Function Generator and Oscilloscope.
2. Measurement of Amplitude, Frequency & Phase difference using Oscilloscope.
3. Verification of (a) Thevenin's theorem and (b) Norton's theorem.
4. Verification of (a) Superposition Theorem and (b) Reciprocity Theorem.
5. Verification of the Maximum Power Transfer Theorem.
6. Study of the I-V Characteristics of (a) p-n junction Diode, and (b) Zener diode.
7. Study of (a) Half wave rectifier and (b) Full wave rectifier (FWR).
8. Study the effect of (a) C- filter and (b) Zener regulator on the output of FWR.
9. Study of the I-V Characteristics of UJT and design relaxation oscillator..
10. Study of the output and transfer I-V characteristics of common source JFET.
11. Study of Fixed Bias and Voltage divider bias configuration for CE transistor.
12. Design of a Single Stage CE amplifier of given gain.
13. Study of the RC Phase Shift Oscillator.
14. Study the Colpitt's oscillator.

Reference Books:

1. Electrical Circuits, M. Nahvi and J. Edminister, Schaum's Outline Series, Tata McGraw-Hill (2005)
2. Networks, Lines and Fields, J.D.Ryder, Prentice Hall of India.
3. J. Millman and C. C. Halkias, Integrated Electronics, Tata McGraw Hill (2001)
4. Allen Mottershead, Electronic Devices and Circuits, Goodyear Publishing Corporation.

ELECTRONICS LAB
ELB 104P: LINEAR AND DIGITAL INTEGRATED CIRCUITS LAB
Max.Marks:25

At least 04 experiments each from section A, B and C

Section-A: Op-Amp. Circuits (Hardware)

1. To design an inverting amplifier using Op-amp (741,351) for dc voltage of given gain
2. (a) To design inverting amplifier using Op-amp (741,351) & study its frequency response
(b) To design non-inverting amplifier using Op-amp (741,351) & study frequency response
3. (a) To add two dc voltages using Op-amp in inverting and non-inverting mode
(b) To study the zero-crossing detector and comparator.
4. To design a precision Differential amplifier of given I/O specification using Op-amp.
5. To investigate the use of an op-amp as an Integrator.
6. To investigate the use of an op-amp as a Differentiator.
7. To design a Wien bridge oscillator for given frequency using an op-amp.
8. To design a circuit to simulate the solution of simultaneous equation and 1st/2nd order differential equation.
9. Design a Butterworth Low Pass active Filter (1st order) & study Frequency Response
10. Design a Butterworth High Pass active Filter (1st order) & study Frequency Response
11. Design a digital to analog converter (DAC) of given specifications.

Section-B: Digital circuits (Hardware)

1. (a) To design a combinational logic system for a specified Truth Table.
(b) To convert Boolean expression into logic circuit & design it using logic gate ICs.
(c) To minimize a given logic circuit.
2. Half Adder and Full Adder.
3. Half Subtractor and Full Subtractor.
4. 4 bit binary adder and adder-subtractor using Full adder IC.
5. To design a seven segment decoder.
6. To design an Astable Multivibrator of given specification using IC 555 Timer.
7. To design a Monostable Multivibrator of given specification using IC 555 Timer.
8. To build Flip-Flop (RS, Clocked RS, D-type and JK) circuits using NAND gates.
9. To build JK Master-slave flip-flop using Flip-Flop ICs
10. To build a Counter using D-type/JK Flip-Flop ICs and study timing diagram.
11. To make a Shift Register (serial-in and serial-out) using D-type/JK Flip-Flop ICs.

Section-C: SPICE/MULTISIM simulations for electronic circuits and devices

1. To verify the Thevenin and Norton Theorems.
2. Design and analyze the series and parallel LCR circuits
3. Design the inverting and non-inverting amplifier using an Op-Amp of given gain
4. Design and Verification of op-amp as integrator and differentiator
5. Design the 1st order active low pass and high pass filters of given cutoff frequency
6. Design a Wein`s Bridge oscillator of given frequency.
7. Design clocked SR and JK Flip-Flop`s using NAND Gates
8. Design 4-bit asynchronous counter using Flip-Flop ICs
9. Design the CE amplifier of a given gain and its frequency response.

Reference Books

1. Digital Principles and Applications, A.P. Malvino, D.P. Leach and Saha, 7th Ed., 2011, Tata McGraw
 2. OP-Amps and Linear Integrated Circuit, R. A. Gayakwad, 4th edn., 2000, Prentice Hall
 3. R. L. Tokheim, Digital Principles, Schaum`s Outline Series, Tata McGraw- Hill (1994)
 4. Digital Electronics, S.K. Mandal, 2010, 1st edition, McGraw Hill
-

कक्षा / Class- B.Sc-I
Paper –I
भूगतिकी एवं भूआकृति विज्ञान
(Geodynamics & Geomorphology)

- इकाई— 01 (i) भूविज्ञान एवं परिप्रेक्ष्य; सौरमण्डल में सूर्य की स्थिति ; परिमाण, आकार, संहति, घनत्व ।
(ii) पृथ्वी की उत्पत्ति
(iii) पृथ्वी की आंतरिक संरचना, भूपर्पटी, प्रवार एवं क्रोड
(iv) पृथ्वी की आयु: निर्धारण की विघटनाभिक विधियाँ
(v) वायुमण्डल, जलमण्डल एवं जैवमण्डल का निर्माण एवं संगठन
- इकाई— 02 (i) प्लेटविवर्तनिकी का प्रारंभिक— अध्ययन
(ii) महाद्वीपीय विस्थापन की अवधारणायें एवं सिद्धान्त
(iii) समस्थैतिकी की अवधारणायें एवं सिद्धान्त
(iv) समुद्रतल विस्तारण की साक्ष्य
(v) समुद्र, महाद्वीप एवं पर्वतों की उत्पत्ति
- इकाई— 03 (i) भूकम्प: भूकम्प की पट्टियाँ, भूकम्प की तीव्रता
(ii) ज्वालामुखी: प्रकार एवं विवरण
(iii) अंतःसमुद्रीपर्वतों, चापाकार द्वीपमालाओं एवं खाइयों का उद्भव, विवरण एवं महत्व
(iv) महाद्वीपीय तटीय क्षेत्रों की विवर्तनिकी : सक्रिय तट एवं सीमांतीय द्रोणियाँ
(v) नवविवर्तनिकी : सक्रियभ्रंश, अपवाह परिवर्तन
- इकाई— 04 (i) भूआकृति विज्ञान की मूलभूत धारणायें
(ii) भूआकृतिक कारक एवं शैल अपक्षय की प्रक्रियायें,
(iii) नदी के भूवैज्ञानिक कार्य एवं नदीय भूआकृतियाँ
(iv) वायु के भूवैज्ञानिक कार्य एवं वायुजनित भूआकृतियाँ
(v) हिमनदों के भूवैज्ञानिक कार्य एवं हिमनदजनित भूआकृतियाँ

- इकाई— 05 (i) समुद्र के भूवैज्ञानिक कार्य एवं तटीय भूआकृतियों
(ii) भूमिगत जल के भूवैज्ञानिक कार्य एवं कार्स्टस्थलाकृति
(iii) ज्वालामुखीय भूआकृतियों
(iv) पृथ्वी का उष्माबजट एवं वैश्विक जलवायु परिवर्तन
(V) भारत का भूआकृति विभाजन

प्रायोगिक कार्य—

- (1) भूआकृतिक संरचनाओं को प्रदर्शित करने वाले प्रादर्शों का अध्ययन
- (2) स्थलाकृतिक मानचित्रों का अध्ययन एवं विभिन्न पैमानों पर सूचक—निर्धारण की जानकारीयों
- (3) भूआकृतिक—मानचित्रों में विभिन्न भूआकृतियों एवं प्रवाह प्रणालियों का अध्ययन
- (4) भारत के रेखित—मानचित्र में मुख्य पर्वतों, झीलों एवं नदियों को अंकित करना
- (5) भारत के रेखित मानचित्र में भूकम्प प्रेक्षणालयों को अंकित करना
- (6) भारतीय महाद्वीपों में आये भूकम्पों का अधिकेन्द्र एवं तीव्रता को मानचित्र में अंकित करना।
- (7) आकारमितिक विश्लेषण

Class- B.Sc-I
Paper –I
(Geodynamics & Geomorphology)

- Unit:1**
- (i) Geology & its perspectives. Earth in the solar system; size, shape, mass, & density.
 - (ii) Origin of Earth.
 - (iii) Internal structure of Earth, Crust, Mantle and Core.
 - (iv) Age of Earth: with special emphasis on Radioactive dating.
 - (v) Formation & composition of Hydrosphere, & Biosphere & Atmosphere.
- Unit:2**
- (i) Elementary idea about Plate-Tectonics.
 - (ii) Concept & theories of continental-drift
 - (iii) Concept & theories of Isostasy.
 - (iv) Evidences of Sea-floor spreading.
 - (v) Origin of oceans, continents & mountains.
- Unit:3**
- (i) Earthquakes, Earthquake Belts, measurement of Earthquakes.
 - (ii) Volcanoes: Types & distribution.
 - (iii) Mid –oceanic- ridges, trenches & island arc; origin, distribution & importance.
 - (iv) Tectonic of continental margins; Active margins & marginal basins.
 - (v) Neo-tectonics; active faults, drainage changes.
- Unit:4**
- (i) Fundamental concepts of Geomorphology.
 - (ii) Geomorphic agents & processes of rock-weathering.
 - (iii) Geological work of rivers; fluvial land forms.
 - (iv) Geological work of wind; Aeolian land forms.
 - (v) Geological work of Glaciers; glacial land forms.
- Unit:5**
- (i) Geological work of oceans; coastal land forms.
 - (ii) Geological work of Ground water. Karst topography.

- (iii) Volcanic land forms.
- (iv) Earth's heat budget & global climatic changes.
- (v) Physiographic divisions of India.

PRACTICALS:

- (1) Study of models showing various Geomorphic features.
- (2) Numbering, Indexing of topographic maps on various scales.
- (3) Interpretation of various Geomorphic landforms & drainage pattern on topographic maps.
- (4) Plotting of major mountain Ranges, Lakes & rivers on outline map of India.
- (5) Plotting of seismic observatories on outline map of India.
- (6) Plotting of epicenters & magnitude of major earthquakes of Indian subcontinents.
- (7) Morphometric analysis.

Suggested Readings:-

भौतिक-भूविज्ञान	—	डॉ.मुकुल घोष—
भौतिक-भूविज्ञान	—	जे.पी. तिवारी एव बी.के. सिंह—
भूआकृति-विज्ञान	—	डॉ.सविन्द्र सिंह
भूविज्ञान एक परिचय	—	डॉ.विद्यासागर दुबे
Physical Geology	-	Miller
Principles of physical geology	-	A. Holmes
An introduction to physical geology-		A.K. Dutta
Principles of Geomorphology	-	W.D. Thornbury
Principles of Geomorphology	-	A.F. Ahmed

कक्षा / Class- B.Sc-I
Paper –II
खनिज एवं क्रिस्टल विज्ञान
(Mineralogy & Crystallography)

- इकाई— 01 (i) खनिज एवं क्रिस्टल की परिभाषा ।
(ii) क्रिस्टल संरचना एवं एकांक कोष ।
(iii) क्रिस्टल के तत्व, क्रिस्टल रूप ।
(iv) क्रिस्टलीय अक्ष एवं अक्षीय कोण ।
(v) क्रिस्टल नोटेशन, अन्तःखण्डीय अनुपात एवं सूचकांक
- इकाई— 02 (i) क्रिस्टल विज्ञान के नियम ।
(ii) क्रिस्टलीय सममिति ।
(iii) क्रिस्टलों का वर्गीकरण । क्रिस्टल समुदायों के सामान्यवर्ग की सममिति ।
(iv) सामान्य वर्ग के रूप ।
(v) क्रिस्टलों में यमलन ।
- इकाई— 03 (i) प्रकाश की प्रकृति, प्रकाश का परावर्तन एवं अपवर्तन ।
(ii) अपवर्तनांक, क्रांतिक कोण, पूर्ण आंतरिक परावर्तन एवं बेके प्रभाव ।
(iii) द्वि-अपवर्तन, निकॉल प्रिज्म की रचना एवं कार्य प्रणाली ।
(iv) ध्रुवण सूक्ष्मदर्शी : अवयव एवं कार्यप्रणाली ।
(v) खनिजों के प्रकाशीय गुण ।
- इकाई— 04 (i) सिलिकेट संरचनाएं
(ii) खनिजों में बंध ।
(iii) समाकृतिकता, बहुरूपता एवं कूटरूपता ।
(iv) ठोस-विलयन
(v) खनिजों के भौतिक गुण ।

इकाई— 05 निम्नलिखित खनिज समूहों के संगठन, भौतिक एवं प्रकाशकीय गुणों का अध्ययन—

- (i) ऑलिवीन्, गार्नेट एवं अभ्रक समूह ।
- (ii) पायरोक्सीन ।
- (iii) एम्फीबोल ।
- (iv) फेल्सपार ।
- (v) सिलिका ।

प्रायोगिक कार्य—

- (1) क्रिस्टल मॉडल में सममिति तत्त्वों का अध्ययन ।
- (2) क्रिस्टल समुदायों की मूल आकृतियों का अध्ययन ।
- (3) यूलर प्रमेय का सत्यापन ।
- (4) प्रमुख शैलकर खनिजों का स्थूलदर्शी अध्ययन ।
- (5) ध्रुवण—सूक्ष्मदर्शी की सहायता से प्रमुख शैलकर खनिजों के प्रकाशीय गुणों का अध्ययन ।
- (6) सात दिवसीय भूवैज्ञानिक क्षेत्रीय अध्ययन

Class- B.Sc-I
Paper –II
(Mineralogy & Crystallography)

- Unit:1**
- (i) Definition of Mineral and Crystal.
 - (ii) Crystal structures, Unit cells
 - (iii) Elements of crystal. Crystal forms.
 - (iv) Crystallographic axes and axial angles.
 - (v) Parameters and indices of crystal notation
- Unit:2**
- (i) Laws of Crystallography
 - (ii) Crystal symmetry
 - (iii) Classification and symmetry of normal classes of seven crystal systems
 - (iv) Forms of normal classes.
 - (v) Twinning in crystals
- Unit:3**
- (i) Nature of light : reflection and refraction of light.
 - (ii) Refractive index. Critical angles. Total internal reflection and Becke effect.
 - (iii) Double refraction. Nicol prism it's construction and working.
 - (iv) Polarizing Microscope- its parts & functions.
 - (v) Optical properties of minerals.
- Unit:4**
- (i) Silicate structures.
 - (ii) Bonding in Minerals.
 - (iii) Isomorphism. Polymorphism and Pseudomorphism.
 - (iv) Solid solution
 - (v) Physical properties of minerals
- Unit:5**
- Study of Composition, physical and optical properties of the following Mineral groups:
- (i) Olivine, Garnet and Mica groups.

- (ii) Pyroxenes
- (iii) Amphiboles
- (iv) Feldspars
- (v) Silica

PRACTICALS-

- (1) Study of symmetry elements in crystal models.
- (2) Study of Fundamental forms of normal classes of all seven crystal system.
- (3) Verification of Euler's theorem.
- (4) Study of Physical properties of rock forming minerals.
- (5) Study of the optical properties of important rock forming minerals using polarizing Microscopes.
- (6) Geological excursion for seven days.

Suggested Readings:

Rutley's elements of Mineralogy	:	Read, H.D.
Dana's text book of Mineralogy	:	Ford W.E.
खनिज तथा क्रिस्टल विज्ञान	—	डॉ.बी.सी. जैश
खनिज विज्ञान के सिद्धांत	—	डॉ. ए.सी. अग्रवाल
प्रायोगिक भू-विज्ञान (भाग-1)	—	डॉ. र. प्र. मांजरेकर
प्रकाशीय खनिज विज्ञान के मूल तत्व	—	विंचेल

प्रपत्र

विषय/संकाय/प्रश्न-पत्र का नाम- **B.Sc. Information Technology**

क्रमांक	कक्षा का नाम	वर्तमान पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम का औचित्य
1.	1 st Year	FUNDAMENTAL OF I.T. COMPUTERS & PC SOFTWARE	FUNDAMENTAL OF IT, COMPUTER AND PC SOFTWARE	Updation Required
2.	1 st Year	PROGRAMMING CONCEPT USING C LANGUAGE	PROGRAMMING IN 'C' LANGUAGE	Updation Required
3.	1 st Year	PRACTICAL	PRACTICAL	Updation Required
4.	2 nd Year	DIGITAL CIRCUITS & COMPUTER H/W	DIGITAL CIRCUITS & COMPUTER H/W	No Change
5.	2 nd Year	PAPER-II (PAPER CODE - 0875)	PAPER-II (PAPER CODE - 0875)	No Change
6.	2 nd Year	PRACTICAL	PRACTICAL	No Change
7.	3 rd Year	AMPLIFIERS AND OSCILLATORS	AMPLIFIERS AND OSCILLATORS	No Change
8.	3 rd Year	FUNDAMENTAL DATA STRUCTURE	FUNDAMENTAL DATA STRUCTURE	No Change
9.	3 rd Year	PRACTICAL	PRACTICAL	No Change

केन्द्रीय अध्ययन मंडल के अध्यक्ष एवं सदस्यों का हस्ताक्षर

S.N.	Name	Designation/University/College	Signature with Date
1.	Dr. Sanjay Kumar	Head, S.o.S. in Computer Science & I.T., Pt. R.S. University, Raipur	 11-06-2018
2.	Mr. Hari Shankar Prasad Tonde	Head, Dept. of Computer Science, Sarguja University, Ambikapur	 11-06-18
3.	Dr. Anuj Kumar Dwivedi	Head, Dept. of Computer Science, Govt. V.B.S.D. Girls College, Jashpur Nagar, Jashpur	 11/6/18
4.	Mr. L.K. Gavel	Head, Dept. of Computer Science, Govt. G.S.G. P.G. College Balod	 11/06/18
5.	Dr. J. Durga Prasad Rao	Head, Dept. of Computer Science, Shri Sankracharya Mahavidyalaya, Bhilai	 11/6/18

B.Sc. IT
I year

B.Sc. Part - I
INFORMATION TECHNOLOGY
PAPER - I
FUNDAMENTAL OF IT, COMPUTER AND PC SOFTWARE
(PAPER CODE - 0824)

Max Marks: 50

NOTE: The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice.

UNIT - I INFORMATION TECHNOLOGY

Concepts of IT and Information System, Application of IT (in Business, Education, Medicine, Science, Governance and Agriculture), Impact of IT on society and industry, Legal and Ethical aspect of IT, Security and Threats in IT, M-Commerce, Virtual reality, Latest trend in IT, Future of IT.

UNIT - II COMPUTER NETWORK

BASIC CONCEPTS OF COMPUTER NETWORK: Internet concepts, LAN, MAN, WAN, Topology, Protocol, Transmission mode, communication process, Required elements of Data Communication.

WIRELESS COMMUNICATION: Mobile Internet, GPS, 3G, 4G, Wi-Fi, Bluetooth, infrared, radio frequency, microwave.

SOCIAL NETWORKING: Evolution of social network sites (YouTube, Facebook, LinkedIn, Twitter), Advantages and Disadvantages of social networking sites.

UNIT - III MS-WORD

Introduction, Word Processing (MS-WORD), Advantage of word processing, Introduction and Installation, Editing a file, using paragraph styles. Newspaper style columns, Using macros, Advance word processing, Headers and footers, Finding text, Setting up printer. Mail merge and other applications, Mathematical calculator, Table handling.

UNIT - IV MS-EXCEL

Introduction to spreadsheet (MS-EXCEL), Definition and advantage of electronic worksheet, Working on spread sheets, Range and related operations, Setting saving and retrieving worksheets, Inserting, Deleting, Coping and Moving of data cells, Inserting and deleting rows and column, Protecting cells, Printing a worksheet, Erasing a worksheet in Graphs creation, Types of graphs, Creating a chart sheet 3D, Columns charts, Moving and changing the size of chart, Printing the chart.

UNIT - V MS-POWER POINT AND MS-ACCESS

MS-POWER POINT: Presenting with Power point: Creating presentation, Working with slides, Different types of slides, Setting page layout, Selecting background and applying design, Adding graphics to slide, Adding sound and movie, Creating chart and graph, Playing a slide show, Slide transition, Advancing slides, Setting time, Rehearsing timing, Animating slide, Animating objects, Running the show from window.

MS-ACCESS: Creating tables in access, Defining data types, Manipulating records.

TEXT BOOKS:

1. Computer Fundamentals, P. K. Sinha, BPB Publications, Sixth Edition.
2. Introduction to Information Technology, V. Rajaraman, PHI, Second Edition.
3. Computer Networks, Forouzan, Tata McGraw-Hill, Second, Edition.
4. Microsoft Office 2007 fundamentals, L Story, D Walls.
5. MS Office, S. S. Shrivastava, Firewall Media

Sinwar
11-06-2018
(Dr. Sanjay Kumar)

Anil
11/06/18
(Dr. A.K. Deivedi)

Gaurel
11/06/18
(L.K. Gaurel)

Joshi
11/6/18
(Dr. J. D. Joshi Pat. Kar)

Joshi
11-06-18
Havi Mehan
Prasad Pat. Kar

B. Sc. PART - I
INFORMATION TECHNOLOGY
PAPER II
PROGRAMMING IN 'C' LANGUAGE

Max Marks: 50

NOTE: The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice.

UNIT-I

Fundamentals of C Programming: Overview of C: History of 'C', Structure of 'C' program. Keywords, Tokens, Data types, Constants, Literals and Variables, Operators and Expressions: Arithmetic operators, Relational operator, Logical operators, Expressions, Operator precedence and associativity, Type casting, Console I/O formatting, Unformatted I/O functions: getch(), getchar(), getchc(),getc(), putc(), putchar().

UNIT-II

Control Constructs: If-else, conditional operators, switch and break, nested conditional branching statements, loops: do while, while, for, Nested loops, break and continue, goto and label, exit function.

Functions: Definition, function components: Function arguments, return value, function call statement, function prototype, Types of function, Scope and lifetime of variable, Call by value and call by reference. Function using arrays, function with command line argument. User defined function: maths and character functions, Recursive function.

UNIT-III

Array: Array declaration, One and Two dimensional numeric and character arrays, Multidimensional arrays.

String: String declaration, initialization, string manipulation with/without using library function.

Structure, Union and Enum - Structure: Basics, declaring structure and structure variable, typedef statement, array of structure, array within structure, Nested structure, passing structure to function, function returning structure. **Union:** basics, declaring union and union variable, **Enum:** declaring enum and enum variable.

UNIT-IV

Pointer: Definition of pointer, Pointer declaration, Using & and * operators. Void pointer, Pointer to pointer, Pointer in math expression, Pointer arithmetic, Pointer comparison, Dynamic memory allocation functions – malloc, calloc, realloc and free, Pointer vs. Array, Array of pointer, Pointer to array, Pointers to function, Function returning pointer, Passing function as Argument to function, Pointer to structure, Dynamic array of structure through pointer to structure.

UNIT-V

File Handling and Miscellaneous Features: File handling: file pointer, File accessing functions: fopen, fclose, fputc, fgetc, fprintf, fscanf, fread, fwrite, eof, fflush, rewind, fseek, ferror. File handling through command line argument. Introduction to C preprocessor #include, #define, Conditional compilation directives: #if, #else, #elif, #endif, #ifndef etc.

TEXT BOOKS:

1. Programming in ANSI C, E Balagurusamy, Tata McGraw-Hill, Third Edition.
2. Let Us C, Yashwant Kanetkar, Infinity Science Press, Eighth Edition.
3. Mastering C, K R Venugopal, Tata McGraw-Hill.
4. The C Programming Language, Brian W. Kernighan, Dennis M. Ritchie, Prentice Hall, Second Edition.
5. Applications Programming in ANSI C, R. Johnsonbaugh, Martin Kalin, Macmillan, Second Edition.
6. The Spirit of C, Mullish Cooper, Jaico publishing House.
7. How to solve it by Computer, R.G.Dromey, Pearson Education.

Suman
11-06-2018

Anuj
11/6/18
(Dr. A.K. Dwivedi)

Pranav
11/06/18
(L.K. Gavel)

Hanu
11/6/18
(Dr. J. Datta)

Handwritten notes and signatures in the bottom right corner.

Practical

- At least 20 Practical based on Syllabus of Paper-I and Paper-II.

Amey
11-06-2018
(Dr. Sanyal)

Amey
11/6/2018
(Dr. A.K. Praveedi)

Gaef
11/06/18
(C. K. Gaef)

Amey
11/6/18
(Dr. J. Dange (Crossed Pen))

Amey
11-06-18
Heri Shanker (Crossed Pen)

MATHEMATICS

There shall be three compulsory papers. Each paper of 50 marks is divided into five units and each unit carry equal marks.

B.Sc. Part-I MATHEMATICS

PAPER - I ALGEBRA AND TRIGONOMETRY

UNIT-I Elementary operations on matrices, Inverse of a matrix. Linear independence of row and column matrices, Row rank, column rank and rank of a matrix. Equivalence of column and row ranks. Eigenvalues, eigenvectors and the characteristic equations of a matrix. Cayley Hamilton theorem and its use in finding inverse of a matrix.

UNIT-II Application of matrices to a system of linear (both homogeneous and nonhomogeneous) equations. Theorems on consistency of a system of linear equations. Relation between the roots and coefficients of general polynomial equations in one variable. Transformation of equations. Descartes's rule of signs. Solutions of cubic equations (Cardon's method), Biquadratic equation.

UNIT-III Mappings, Equivalence relations and partitions. Congruence modulo n . Definition of a group with examples and simple properties. Subgroups, generation of groups, cyclic groups, coset decomposition, Lagrange's theorem and its consequences. Fermat's and Euler's theorems. Normal subgroups. Quotient group, Permutation groups. Even and odd permutations. The alternating groups A_n . Cayley's theorem.

UNIT-IV Homomorphism and Isomorphism of groups. The fundamental theorems of homomorphism. Introduction, properties and examples of rings, Subrings, Integral domain and fields Characteristic of a ring and Field.

TRIGONOMETRY :

UNIT-V De-Moivre's theorem and its applications. Direct and inverse circular and hyperbolic functions. Logarithm of a complex quantity. Expansion of trigonometrical functions. Gregory's series. Summation of series.

TEXT BOOK :

1. I.N. Herstein, Topics in Algebra, Wiley Eastern Ltd., New Delhi, 1975
2. K.B. Datta, Matrix and Linear Algebra, Prentice Hall of India Pvt. Ltd. New Delhi, 2000.
3. Chandrika Prasad, Text-Book on Algebra and Theory of equations, Pothishala Private Ltd., Allahabad.
4. S.L. Loney, Plane Trigonometry Part II, Macmillan and Company, London.

REFERENCES :

1. P.B. Bhattacharya, S.K. Jain and S.R. Nagpaul, First Course in linear Algebra, Wiley Eastern, New Delhi, 1983.
2. P.B. Bhattacharya, S.K. Jain and S.R. Nagpaul, Basic Abstract Algebra (2 edition), Cambridge University Press, Indian Edition, 1997.
3. S.K. Jain, A. Gunawardena and P.B. Bhattacharya, Basic linear Algebra with MATLAB, Key College Publishing (Springer-Verlag), 2001.
4. H.S. Hall and S.R. Knight, Higher Algebra, H.M. Publications, 1994.
5. R.S. Verma and K.S. Shukla, Text Book on Trigonometry, Pothishala Pvt. Ltd., Allahabad.

B.Sc. Part-I
MATHEMATICS
PAPER - II
CALCULUS

DIFFERENTIAL CALCULUS :

UNIT-I $\epsilon - \delta$ definition of the limit of a function. Basic properties of limits. Continuous functions and classification of discontinuities. Differentiability. Successive differentiation. Leibnitz theorem. Maclaurin and Taylor series expansions.

UNIT-II Asymptotes. Curvature. Tests for concavity and convexity. Points of inflexion. Multiple points. Tracing of curves in cartesian and polar coordinates.

INTEGRAL CALCULUS:

UNIT-III Integration of transcendental functions. Reduction formulae. Definite integrals. Quadrature. Rectification. Volumes and surfaces of solids of revolution.

ORDINARY DIFFERENTIAL EQUATIONS :

UNIT-IV Degree and order of a differential equation. Equations reducible to the linear form. Exact differential equations. First order higher degree equations solvable for x, y, p. Clairaut's form and singular solutions. Geometrical meaning of a differential equation. Orthogonal trajectories. Linear differential equations with constant coefficients. Homogeneous linear ordinary differential equations.

UNIT-V Linear differential equations of second order. Transformation of the equation by changing the dependent variable/the independent variable. Method of variation of parameters. Ordinary simultaneous differential equations.

TEXT BOOK :

1. Gorakh Prasad, Differential Calculus, Pothishala Private Ltd. Allahabad.
2. Gorakh Prasad, Integral Calculus, Pothishala Private Ltd. Allahabad.
3. D.A. Murray Introductory Course in Differential Equations, Orient Longman (India), 1976.

REFERENCES :

1. Gabriel Klambauer, Mathematical Analysis, Marcel Dekkar, Inc. New York, 1975.
2. Murray R. Spiegel, Theory and Problems of Advanced Calculus, Schaum's outline series, Schaum Publishing Co. New York.
3. N. Piskunov, Differential and Integral Calculus, Peace Publishers, Moscow.
4. P.K. Jain and S.K. Kaushik, An Introduction to Real Analysis, S. Chand & Co. New Delhi, 2000.
5. G.F. Simmons, Differential Equations, Tata Mc Graw Hill, 1972.
6. E.A. Codington, An Introduction to Ordinary Differential Equations, Prentics Hall of India, 1961.
7. H.T.H. Piaggio, Elementary Treatise on Differential Equations and their Applications, C.B.S. Publishe & Distributors, Dehli, 1985.
8. W.E. Boyce and P.O. Dprima, Elementary Differential Equations and Boundary Value Problems, John Wiley, 1986.
12. Erwin Kreyszig, Advanced Engineering Mathematics, John Wiley and Sons, 1999.

B.Sc. Part-I
MATHEMATICS
PAPER - III
VECTOR ANALYSIS AND GEOMETRY

VECTOR ANALYSIS :

- UNIT-I** Scalar and vector product of three vectors. Product of four vectors. Reciprocal Vectors. Vector differentiation. Gradient, divergence and curl.
- UNIT-II** Vector integration. Theorems of Gauss, Green, Stokes and problems based on these.
- UNIT-III** General equation of second degree. Tracing of conics. System of conics. Confocal conics. Polar equation of a conic.
- UNIT-IV** Sphere. Cone. Cylinder.
- UNIT-V** Central Conicoids. Paraboloids. Plane sections of conicoids. Generating lines. Confocal Conicoids. Reduction of second degree equations.

TEXT BOOKS :

1. N. Saran and S.N. Nigam, Introduction to vector Analysis, Pothishala Pvt. Ltd. Allahabad.
2. Gorakh Prasad and H.C. Gupta, Text Book on Coordinate Geometry, Pothishala Pvt. Ltd., Allahabad.
3. R.J.T. Bell, Elementary Treatise on Coordinate Geometry of three dimensions, Machmillan India Ltd. 1994.

REFERENCES :

1. Murray R. Spiegel, Theory and Problems of Advanced Calculus, Schaum Publishing Company, New York.
2. Murray R. Spiegel, Vector Analysis, Schaum Publishing Company, New York.
3. Erwin Kreyszig, Advanced Engineering Mathematics, John Wiley & Sons, 1999.
4. Shanti Narayan, A Text Book of Vector Calculus, S. Chand & Co., New Delhi.
5. S.L. Loney, The Elements of Coordinate Geometry, Macmillan and Company, London.
6. P.K. Jain and Khalil Ahmad, A Text Book of Analytical Geometry of two Dimensions, Wiley Eastern Ltd., 1994.
7. P.K. Jain and Khalil Ahmad, A Text Book of Analytical Geometry of three Dimensions, Wiley Eastern Ltd., 1999.
8. N. Saran and R.S. Gupta, Analytical Geometry of three Dimensions, Pothishala Pvt. Ltd. Allahabad.

MICROBIOLOGY

BSc-1st

Paper- I: General Microbiology & Basic Technique

UNIT-1: Fundamental, History & Developments

Introduction to major groups of microorganisms and fields of Microbiology; Historical development, Contributions of Pioneers (Louis Pasteur, Edward Jenner, Anton Von Leewenhoeck and Alexander Flemming). Beneficial and harmful microbes and its role in daily life.

UNIT-2: Basic Microbial Techniques

Methods of studying microorganism; Sterilization Techniques (Physical & Chemical Sterilization). Pure culture isolation Technique: Streaking, Waksman serial dilution and plating methods. cultivation, maintenance and preservation of pure cultures. Culture media & conditions for microbial growth. Staining technique: simple staining, Differential (gram staining), negative staining and acid fast staining.

UNIT-3: Virology & Bacteriology

Diversity of microbial world; Principle and classification of Viruses and Bacteria. Structure, Multiplication and Economic importance of viruses (TMV, Influenza virus & T₄-Phage). Structure & Functional organization of Bacteria, Cell wall of Gram Positive & Gram Negative bacteria; Economic importance of Bacteria.

UNIT-4: Mycology

General characteristics and classification of Fungi; Structure and Reproduction of fungi (*Rhizopus*, *Penicillium*, *Aspergillus*, *Yeast* & *Agaricus*). Common fungal disease of crops (Late & Early blight of potato, Smut of Rice, Tikka and Red rot of Sugarcane). Structure, reproduction and economic aspect of Lichens.

UNIT-5: Phycology & Protozoology

General characteristics and classification of Algae and Protozoa; General account & economic importance of Cyanobacteria (*Microcystis*, *Ocellitoria*, *Nostoc* & *Anabaena*) and Protozoa (*Amoeba*, *Paramoecium*, *Euglena* and *plasmodium*).

Text Books Recommended:

1. General microbiology; Vol I & II, Powar C. B. and Daginawala H. I., Himalaypub.house, Bombay.
2. A textboal of Microbiology; Dubey & Maheshwari.
3. Microbiology: An Introduction; G. Tor tora, B. Funke, C. Benjamin Cummings.
4. General Microbiology; Seventh edition by Hans G Schlegel, CambridgeUniversity Press.
5. Practical Microbiology; Dubey and Maheshwari.
6. Handbook of Microbiology; Bisen P.S., Varma K., CBS Publishers and Distributors, Delhi. General Microbiology by Brock.
7. General Microbiology by Pelzar et al.
8. Introduction on Microbial Techniques by Gunasekaran.

Sallana

Phoralt

SB

Dsvak kaledhar

Phmirala

Paper- II: Biochemistry and Physiology**UNIT-1: CARBOHYDRATES AND PROTEINS**

Structure, classification and properties of Carbohydrates – Monosaccharide, Oligosaccharides (Disaccharides) and Polysaccharides. Structure, classification and properties of Protein - Amino acids, peptides and Proteins (Primary, Secondary, Tertiary and Quaternary structure).

UNIT-2: LIPIDS AND NUCLEIC ACIDS

Structure, classification and properties of Lipids; Saturated and Unsaturated fatty acids. Structure and properties of Nucleotides. Structure and forms of DNA; Replication of DNA. Types, Structure and Function of RNA.

UNIT-3: ENZYMES

Structure, Nomenclature, Classification and Properties of Enzymes. Mechanism of enzyme action, Enzyme kinetic: Michaelis-Menten. Equation & derivation, Enzyme inhibition, Lineweaver-Burk Plot (LB plot). Co-enzymes and their role; Allosteric enzymes and Isoenzyme. Extracellular enzymes and their role.

UNIT-4: MICROBIAL METABOLISM

Bacterial photosynthesis and Chemosynthesis: Glycolysis, TCA cycle and Oxidative Phosphorylation. Anaerobic catabolism of glucose; Fat Biosynthesis, alpha and beta oxidation of fatty acids. Deamination, trans-amination and Urea cycle.

UNIT-5: GROWTH PHYSIOLOGY & TRANSPORT SYSTEM

Bacterial cell division, Genome replication and Growth Phases, Conditions for growth. Plasma membrane & Transport system, types of transport (Passive and active). Diffusion (simple & facilitated), Concept of Uniport, Antiport and Symport;

Text Books Recommended:

1. General Biochemistry by A.C. Deb.
2. Biochemistry by Lehninger (Kalyani publication)
3. Biochemistry by U. Satyanarayan.
4. Microbiology by Anantanarayan and Panikar.
5. Fundamentals of Biochemistry; J L Jain, Sunjay Jain, Nitin Jain; S. Chand & Company Ltd
6. Practical Biochemistry: Principles and Techniques; *5th Edition*; Keith Wilson and John Walker
7. Biophysical Biochemistry: Principles and Techniques; Avinash Upadhyay, Kakoli Upadhyay and Nirmalendu Nath; Himalaya Publishing House.



Handwritten signatures of five individuals: Sathana, Phoralk, ASB, DSVK Kalachar, and Nirmalendu.

PRACTICAL**M. M. 50**

=====

Basic information about autoclave, hot air oven, laminar air flow and other laboratory instruments

Preparation of solid/liquid culture media.

Isolation of single colonies on solid media.

Enumeration of bacterial numbers by serial dilution and plating.

Simple and differential staining.

Measurement of microorganism (micrometry) and camera Lucida drawing of isolated organism.

Determination of bacterial growth by optical density measurement.

General and specific qualitative test for carbohydrates

General and specific qualitative test for amino acids

General and specific qualitative test for lipids

Estimation of protein

Estimation of blood glucose

Assay of the activity of amylases

Assay of the activity of Phosphates

Scheme of Practical Examination

Time - 4 hours

M.M. 50

1. Exercise on Microbiological methods	10
2. Exercise on Biochemical tests	10
3. Exercise on staining method	05
4. Spotting (1-5)	10
5. Viva-Voce	05
6. Sessional	10

Total 50

Pallana

SB

Chenalt

DSValkalshar

Aminale

B.Sc. Part-I
Paper-I
MECHANICS, OSCILLATIONS AND PROPERTIES OF MATTER
(Paper code 0793)

Unit-1 Cartesian, Cylindrical and Spherical coordinate system, Inertial and non-inertial frames of reference, uniformly rotating frame, Coriolis force and its applications. Motion under a central force, Kepler's laws. Effect of Centrifugal and Coriolis forces due to earth's rotation, Center of mass (C.M.), Lab and C.M. frame of reference, motion of C.M. of system of particles subject to external forces, elastic, and inelastic collisions in one and two dimensions, Scattering angle in the laboratory frame of reference, Conservation of linear and angular momentum, Conservation of energy.

Unit-2 Rigid body motion, rotational motion, moments of inertia and their products, principal moments & axes, introductory idea of Euler's equations. Potential well and Periodic Oscillations, case of harmonic small oscillations, differential equation and its solution, kinetic and potential energy, examples of simple harmonic oscillations: spring and mass system, simple and compound pendulum, torsional pendulum.

Unit-3 Bifilar oscillations, Helmholtz resonator, LC circuit, vibrations of a magnet, oscillations of two masses connected by a spring. Superposition of two simple harmonic motions of the same frequency, Lissajous figures, damped harmonic oscillator, case of different frequencies. Power dissipation, quality factor, examples, driven (forced) harmonic oscillator, transient and steady states, power absorption, resonance.

Unit-4 E as an accelerating field, electron gun, case of discharge tube, linear accelerator, E as deflecting field- CRO sensitivity, Transverse B field, 180° deflection, mass spectrograph, curvatures of tracks for energy determination, principle of a cyclotron. Mutually perpendicular E and B fields: velocity selector, its resolution. Parallel E and B fields, positive ray parabolas, discovery of isotopes, elements of mass spectrography, principle of magnetic focusing lens.

Unit-5 Elasticity: Strain and stress, elastic limit, Hooke's law, Modulus of rigidity, Poisson's ratio, Bulk modulus, relation connecting different elastic- constants, twisting couple of a cylinder (solid and hollow), Bending moment, Cantilever, Young modulus by bending of beam.

Viscosity: Poiseuille's equation of liquid flow through a narrow tube, equations of continuity. Euler's equation, Bernoulli's theorem, viscous fluids, streamline and turbulent flow. Poiseuille's law, Coefficient of viscosity, Stoke's law, Surface tension and molecular interpretation of surface tension, Surface energy, Angle of contact, wetting.

[Signature]
11/6/18

[Signature]
11/6/2018

[Signature]
11/6/18

[Signature]
11-6-18

[Signature]
11/06/18

[Signature]
11/06/18

TEXT AND REFERENCE BOOKS:

1. E M Purcell, Ed Berkely physics course, vol. Mechanics (Mc. Gr. Hill) R P Feynman.
2. R B Lighton and M Sands, the Feynman lectures in physics, vol I (B) publications, Bombay, Delhi, Calcutta, Madras.
3. D P Khandelwal, Oscillations and waves (Himalaya Publishing House Bombay).
4. R. K. Ghosh, The Mathematics of waves and vibrations (Macmillan 1975).
5. J.C. Upadhyaya- Mechanics (Hindi and English Edition.)
6. D.S. Mathur- Mechanics and properties of matter.
7. Brijlal and Subramaniam- Oscillations and waves. Resnick and Halliday- Volume I
8. Physics Part –1: Resnick and Halliday.

[Handwritten signature]
11/6/18

[Handwritten signature]
11/6/2018

[Handwritten signature]
11/6/18

[Handwritten signature]
11-6-18

[Handwritten signature]
11/06/18

[Handwritten signature]
11/06/18

Paper-II
ELECTRICITY, MAGNETISM AND ELECTROMAGNETIC THEORY

Unit-1 Repeated integrals of a function of more than one variable, definition of a double and triple integral. Gradient of a scalar field and its geometrical interpretation, divergence and curl of a vector field, and their geometrical interpretation, line, surface and volume integrals, flux of a vector field. Gauss's divergence theorem, Green's theorem and Stoke's theorem and their physical significance. Kirchoff's law, Ideal Constant-voltage and Constant-current Sources. Thevenin theorem, Norton theorem, Superposition theorem, Reciprocity theorem and Maximum Power Transfer theorem.

Unit-2 Coulomb's law in vacuum expressed in Vector forms, calculations of E for simple distributions of charges at rest, dipole and quadrupole fields. Work done on a charge in a electrostatic field expressed as a line integral, conservative nature of the electrostatic field. Relation between Electric potential and Electric field, torque on a dipole in a uniform electric field and its energy, flux of the electric field.
Gauss's law and its application: E due to (1) an Infinite Line of Charge, (2) a Charged Cylindrical Conductor, (3) an Infinite Sheet of Charge and Two Parallel Charged Sheets, capacitors, electrostatic field energy, force per unit area of the surface of a conductor in an electric field, conducting sphere in a uniform electric field.

Unit-3 Dielectric constant, Polar and Non Polar dielectrics, Dielectrics and Gauss's Law, Dielectric Polarization, Electric Polarization vector P, Electric displacement vector D. Relation between three electric vectors, Dielectric susceptibility and permittivity, Polarizability and mechanism of Polarization, Lorentz local field, Clausius Mossotti equation, Debye equation,

Ferroelectric and Paraelectric dielectrics, Steady current, current density J, non-steady currents and continuity equation, rise and decay of current in LR, CR and LCR circuits, decay constants, AC circuits, complex numbers and their applications in solving AC circuit problems, complex impedance and reactance, series and parallel resonance, Q factor, power consumed by an a AC circuit, power factor.

Unit-4 Magnetization Current and magnetization vector M, three magnetic vectors and their relationship, Magnetic permeability and susceptibility, Diamagnetic, paramagnetic and ferromagnetic substances. B.H. Curve, cycle of magnetization and hysteresis, Hysteresis loss.

[Signature]
11/6/18

[Signature]
11/6/2018

[Signature]
11/6/18

[Signature]
11-6-18

[Signature]
11/06/18

[Signature]
11/06/18

Biot-Savart's Law and its applications: B due to (1) a Straight Current Carrying Conductor and (2) Current Loop. Current Loop as a Magnetic Dipole and its Dipole Moment (Analogy with Electric Dipole). Ampere's Circuital law (Integral and Differential Forms).

Unit-5 Electromagnetic induction, Faraday's law, electromotive force, integral and differential forms of Faraday's law Mutual and self inductance, Transformers, energy in a static magnetic field. Maxwell's displacement current, Maxwell's equations, electromagnetic field energy density. The wave equation satisfied by E and B, plane electromagnetic waves in vacuum, Poynting's vector.

TEXT AND REFERENCE BOOKS:

1. Berkeley Physics Course, Electricity and Magnetism, Ed. E.M. Purcell (Mc Graw - Hill).
2. Halliday and Resnik, Physics, Vol. 2.
3. D J Griffith, Introduction to Electrodynamics (Prentice-Hall of India).
4. Raitz and Milford, Electricity and Magnetism (Addison-Wesley).
5. A S Mahajan and A A Rangwala, Electricity and Magnetism (Tata Mc Graw-hill).
6. A M Portis, Electromagnetic fields.
7. Pugh & Pugh, Principles of Electricity and Magnetism (Addison-Wesley).
8. Panofsky and Phillips, Classical Electricity and Magnetism, (India Book House).
9. S S Atwood, Electricity and Magnetism (Dover).

[Handwritten signature]
11/6/18

[Handwritten signature]
11/6/2018

[Handwritten signature]
11/6/18

[Handwritten signature]
11-6-18

[Handwritten signature]
11/06/18

[Handwritten signature]
11/06/18

PRACTICALS

Minimum 16 (Eight from each group)

Experiments out of the following or similar experiments of equal standard

GROUP-A

1. Study of laws of parallel and perpendicular axes for moment of inertia.
2. Moment of inertia of Fly wheel.
3. Moment of inertia of irregular bodies by inertia table.
4. Study of conservation of momentum in two dimensional oscillations.
5. Study of a compound pendulum.
6. Study of damping of a bar pendulum under various mechanics.
7. Study of oscillations under a bifilar suspension.
8. Study of modulus of rigidity by Maxwell's needle.
9. Determination of Y , k , η by Searl's apparatus.
10. To study the oscillation of a rubber band and hence to draw a potential energy curve from it.
11. Study of oscillation of a mass under different combinations of springs.
12. Study of torsion of wire (static and dynamic method).
13. Poisson's ratio of rubber tube.
14. Study of bending of a cantilever or a beam.
15. Study of flow of liquids through capillaries.
16. Determination of surface tension of a liquid.
17. Study of viscosity of a fluid by different methods.

GROUP-B

1. Use of a vibration magnetometer to study a field.
2. Study of magnetic field B due to a current.
3. Measurement of low resistance by Carey-Foster bridge.
4. Measurement of inductance using impedance at different frequencies.
5. Study of decay of currents in LR and RC circuits.
6. Response curve for LCR circuit and response frequency and quality factor.
7. Study of waveforms using cathode-ray oscilloscope.
8. Characteristics of a choke and Measurement of inductance.
9. Study of Lorentz force.
10. Study of discrete and continuous LC transmission line.
11. Elementary FORTRAN programs, Flowcharts and their interpretation.
18. To find the product of two matrices.
19. Numerical solution of equation of motion.
20. To find the roots of quadratic equation.

[Signature]
11/6/18

[Signature]
11/6/2018

[Signature]
11/6/18

[Signature]
11-6-18

[Signature]
11/06/18

[Signature]
11/06/18

TEXT AND REFERENCE BOOKS:

1. B saraf et al Mechanical Systems(Vikas publishing House,New Delhi).
2. D.P. khandelwal, A Laboratory Manual of Physics for Undergraduate classes (Vani Publication House,New Delhi).
3. C G Lambe Elements of statistics (Longmans Green and Co London New York, Tprpnto).
4. C Dixon, Numerical analysis.
5. S Lipsdutz and A Poe, schaum's outline of theory and problems of programming with Fortran (MC Graw-Hill Book Company, Singapore 1986).

[Signature]
11/6/18

[Signature]
11-6-18

[Signature]
11/6/2018

[Signature]
11/06/18

[Signature]
11/6/18

[Signature]
11/06/18

B.A./B.Sc. –I
Subject-Statistics
Paper – I (Paper Code-0803)
PROBABILITY THEORY

Unit-I

Important concepts in probability: Random experiment: trial, sample point and sample space, event, Operations of events, concepts of mutually exclusive and exhaustive events. Definition of probability: classical and relative frequency approach. Richard Von Misses, Cramer and Kolmogrove approaches to probability, merits and demerits to these approaches, any general idea to be given. Discrete probability space, Properties of probability based on axiomatic approaches, Independence of events, Conditional probability, total and compound probability rules, Baye's theorem and its applications.

Unit-II

Random variables: Definition of discrete random variable (rv); probability mass function (pmf) and cumulative distribution function (cdf). Joint pmf of several discrete rvs. Marginal and conditional pmfs. Independence of rvs. Idea of continuous random variables, probability density function, illustration of random variables and its properties. Expectation of a random variable and its properties -moments, measures of location and dispersion, skewness and kurtosis, Moment generating function, raw and central moments, Probability generating function (pgf) and, their properties and uses.

Unit-III

Standard univariate discrete distributions: degenerate, discrete uniform, hypergeometric, Poisson, geometric and negative binomial distributions. Marginal and conditional distributions, Distributions of functions of discrete rvs, reproductive property of standard distributions.

Unit-IV

Univariate continuous distributions and their properties: Uniform, Beta, Gamma, Exponential, Normal, Cauchy, Lognormal. Moment generating function (mgf) : its properties and applications. Tchebycheff's inequality and applications, statements and applications of weak law of large numbers and central limit theorems.

Unit-V

Four short notes, one from each unit will be asked. Students have to answer any two.

REFERENCES

1. Bhat B.R.,Srivankataramana T. and Rao Madhav K.S. (1997): Statistics; A Beachners Vol. II, New Age International (P) Ltd.
2. Chung, K.L. (1979). Elementary Probability Theory with Stochastic Processes, Springer International Student Edition.
3. Edward P.J., Ford J.S. and Lin (1974): Probability for Statistical Decision-Marketing. Prentice Hall
4. Goon A.M., Gupta M.K. and Dasgupta B.(1999): Fundamentals of Statistics, Vol. I , World Press, Calcutta
5. Mood A.M., Grabill F.A. and Bose D.C.(1974): Introduction to the theory of Statistics, Mc. Graw Hall.

ADDITIONAL REFERENCES:

6. Cook, Cramer and Clark (): Basic Statistical Computing, Chapman and Hall.
7. David Stirzaker (1994). Elementary Probability, Cambridge University Press.
8. Feller, W. (1968). An Introduction to Probability Theory and its Applications, Wiley.
9. Hoel P.G. (1971): Introduction to Mathematical Statistics
10. Mayer P.L. (1970): Introductory Probability and Statistical Applications, Addition Wesley
11. Mukhopadhyay, P. (1996). Mathematical Statistics, New Central Book Agency, Calcutta.
12. Parzen, E. (1960). Modern Probability Theory and its Applications, Wiley Eastern.
13. Pitman, Jim (1993). Probability, Narosa Publishing House.

Paper – II(Paper Code-0804) **DESCRIPTIVE STATISTICS**

Unit - I

Origin and Development of statistical importance, uses and limitations of Statistics. Types of Data: Concepts of a statistics population and sample from a population; qualitative and quantitative data; nominal and ordinal data; cross sectional and time series data; discrete and continuous data; frequency and non-frequency data.

Collection and Scrutiny of Data; Primary data – designing a questionnaire and a schedule; checking their consistency. Secondary data – their major sources including some government publications. Complete enumeration, controlled experiments, observational studies and sample surveys. Scrutiny of data for internal consistency and detection of errors of recording. Ideas of cross-validation.

Presentation of Data: Construction of tables with one or more factors of classification. Diagrammatic and graphical representation of non-frequency data. Frequency distributions, cumulative frequency distributions and their graphical and diagrammatic representation – column diagram, histogram, frequency polygon and ogives. Stem and leaf chart. Box plot.

Unit -II

Analysis of Quantitative Data: Univariate data: Concepts of central tendency or location, and their measures; arithmetic, geometric and harmonic mean, median and mode.

Unit -III

Dispersion and relative measures of dispersion, skewness and kurtosis, and their measures including those based on quartiles and moments. Sheppard's corrections for moments for grouped data (without deviation).

Unit -IV

Bivariate data: Scatter diagram. Product moment correlation coefficient and its properties. Coefficient of determination. Correlation ratio. Concepts of regression. Intra-class correlation coefficient with equal and unequal group sizes. Rank correlation – Spearman's and Kendall's measures. Correlation index. Principle of least squares. Fitting of linear and quadratic regression and related results. Fitting

of curves reducible to polynomials by log and inverse transformation. Multivariate data: Multiple regression, multiple correlation and partial correlation in 3 variables. Their measures and related results.

Unit V

Four short notes, one from each unit will be asked. Students have to answer any two.

REFERENCES

1. Bhat B.R., Srivankataramana T. and Rao Madhav K.S. (1997): Statistics; A Beachners Vol. II, New Age International (P) Ltd.
2. Croxton FE, Cowden DJ and Klein S: Applied General Statistics (1973): Prentice Hall of India.
3. Goon A.M., Gupta M.K., Dasgupta B. Fundamentals of Statistics, Vol. 1(1991) & Vol. 2(2001). World Press, Calcutta.
5. Gupta V.K. and Kapor S.C. : Fundamentals of Mathematical Statistics S. Chand and Sons.

ADDITIONAL REFERENCES:

6. Cook, Cramer and Clark (): Basic Statistical Computing, Chapman and Hall.
7. Mood A.M., Grabill F.A. and Bose D.C.(1974): Introduction to the theory of Statistics, McGraw Hill.
8. Snedecor GW and Cochran WG: Statistical Methods (1967) : Iowa State University Press.
9. Spiegel, MR (1967): Theory & Problems of Statistics (1967): Schaum's Publishing Series.

Paper III:

Practical : Practicals Based on Paper I & II

1. Presentation of data by Frequency tables, diagrams and graphs.
2. Calculation of Measures of Central Tendency, dispersion , skewness and kurtosis
3. Product Moment Correlation and Correlation Ratio
4. Fitting of Curves by the least square method
5. Regression of two variables
6. Spearman's Rank correlation Coefficient
7. Multiple regression of three variables
8. Multiple correlation and partial correlation
9. Evaluation of probabilities using addition and multiplication theorems, conditional probabilities and Bayes theorems
10. Exercises on mathematical expectations and finding measures of central tendency, dispersion, skewness and kurtosis of univariate probability distributions
11. Fitting of univariate and conditional distributions



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SYLLABUS B.SC. PART-I

FORESTRY PAPER I

MM: 50

UNIT- I

The Forest & Forestry (An Introduction)

Definition of forest & forestry, component of forest, classification of forest, growth and changes in the seedling, sapling, pole and trees

UNIT- II

Principle of Silviculture

Introduction, definition, scope, and objective of silviculture, relation of silviculture with forestry and its branches, Influence of forest on environment, factors of locality

UNIT- III

Forest Vegetation & Its Distribution

Botanical area of India, distribution description of forest type in India, forest & climate

UNIT- IV

Plantation Forestry

Nursery and its establishment, method of sowing & plantation, industrial plantation & energy plantation, protection of plantation

UNIT- V

Geology & Forest Soil

Definition & introduction of Geology and Pedology, soil profile & soil group, soil formation, soil properties



UNIT- I

Regeneration Of Forest

Natural regeneration, artificial regeneration, tending operation

UNIT- II

Silviculture System

Introduction of the following system, high forest system, coppice system, improvement felling

UNIT- III

Silvics of Important Tree Species

Sal, Teak, Sissoo, Bamboo, Pine, Casuarinas, Khamer, Eucalyptus

UNIT- IV

Water Shed & A Forestation

Introduction to soil erosion & importance of soil and water conservation, concept & characteristics of watershed, choice of species to problematic areas such as Ravine lands, saline & alkaline areas, mined areas & wet lands.

UNIT- V

Handling Of Forestry Seeds

Fruit & seed collection & processing, storage of seeds, seed dormancy & seed testing

REFERENCE BOOKS

1. Principles and practices of Silvicultures L.S. Khanna, A.P. Dwivedi.
2. Systematic Botany, M.P. Shilva, R.S. Mathur
3. Forest type of India-Champion & Seth
4. Forestry in India, V.P. Agrawal, K.P. Sagra
5. Hand book of Forestry, S.S. Negi
6. Forest plantation, R.K. Luna & Chakravorti
7. Forest nursery



List of Practicals

1. Measurement of Diameter, girth, height etc.
2. Nursery management
3. Identification of Forest spp. And their economic importance
4. Visit to Forest areas
5. Regeneration surveys
6. Reforestation
7. Handling of nursery stock
8. Field planting methods



TASAR TECHNOLOGY

PAPER- I

MORPHOLOGY, ANATOMY & PHYSIOLOGY OF TASAR SILKWORM & AGRONOMY

MM: 50

UNIT – I

1. History of Non-Mulberry Sericulture.
2. Outline classification of Non-Mulberry Silkworm, their distribution in India and other countries.
3. General organization and life-cycle of *Antherea mylitta*, & Morphology & Anatomy of Larva, pupa & moth.
4. Structure of EGG, fertilization, Embryogenesis, Incubation & Hatching.

UNIT – II

1. Reproduction – structure of re-productive system, oogenesis, spermatogenesis, development & growth.
2. Molting and volatise in tasar silkworm.
3. Endocrinology of tasar silkworm, Role of hormone in development & metamorphosis.
4. Silk glands, structure of silk glad, formation and biochemistry of silk.

UNIT-III

1. Rearing-rearing equipment, preparation for rearing, Environmental condition for rearing of tasar silkworm.
2. Rearing of large, young age and late age tasar silkworm.
3. Disinfection and disinfectants.
4. Mounting, spinning & harvesting of cocoon.

UNIT-IV

1. Diseases of tasar silkworm- protozoan, viral, Bacterial, Fungal, symptoms, causative agents, preventive & control Measures.
2. Morphology & Anatomy of primary food plants of Tasar silkworm (*Terminania arjuna*, *Terminania tomentosa*, *Shorea robusta* etc.) their culture methods.
3. Outline classification of primary & secondary food plants of tasar worm, their distribution in India (with the special references to Chhattisgarh and other states.)

UNIT-V

1. Farm Management: selection of soil & preparation of land for tasar plant cultivation.
2. Propagation of Tasar food plants-seedlings, saplings, crafting, layering.
3. Harvesting of Leaf.
4. Diseases of Non-mulberry food plants, Fungal, Bacterial, Viral, deficiency, Insect pest, control method.

List of Reference Books

1. Tasar Culture: By Dr. M.S. Jolly et. Al. CSB. 1974
2. Silkworm Rearing: And Diseases of Silkworms: By the Mysore Silk Asso. 1956.
3. Text Book of Tropical Sericulture: Japan Over Seas Corp. Volunteers, 1975.
4. Hand Book of Silkworm Rearing: Agricultural & Technical Manual - Fuzi Pub. Co. Ltd. Japan, 1972.
5. Improved Method Of Rearing Young Age Silkworm: By S. Krishna swami, Reprinted By CSB, Bangalore, 1986.
6. Silkworm Biology And Rearing - A.K. Dhole, NCERT, New Delhi, 1990
7. Diseases and Pests of Mulberry and Their Control (1990) Pub. by CSB & TI Mysore
8. Text Book of Soil Science, T.D. Biswas & S.K. Mukherjee (1990) TMH



TASAR TECHNOLOGY
PAPER-II
TASAR SILKWORM–GENETICS AND BREEDING

MM: 50

UNIT-I

1. Moth Emergence: pairing, ovi-position, moth examination.
2. Incubation of univoltine, bivoltine and multivoltine eggs.
3. Preparation of loose eggs-Advantages of loose eggs, handling of loose eggs.
4. Seed Technology: seed areas and importance of quality seed in tasar industry.

UNIT-II

1. Seed cocoon: Harvesting of cocoon, gradation and selection consignment for processing.
2. Storage & preservation of cocoon: Types of building, methods of storing-problems care in different season.
3. Grainage: Definition, model grainage house, location, orientation and grainage equipments, condition required in grainage work.
4. Hybridization – Inter-specific & Intra specific with special reference to tasar. Its impact & future prospects.

UNIT-III

1. Breeding-methods and its application, qualitative and quantitative improvement by breeding.
2. Breeding of Tasar silkworm: Aims, pre-requirements, variability selection for breeding.
3. Inbreeding: Advantage and dis-advantage, exploitation of inbreeding of non-mulberry silkworms, general and specific combining.
4. Selection: Methods of selection, criteria of selection, individual and batch selection.

UNIT-IV

1. Structure of typical animal cell, mitosis & meiosis, chromosome number of different Non-mulberry silkworm.
2. Hereditary traits, in tasar silkworm-Egg, Larvae and pupae.
3. Mutations: Type of mutation, spontaneous and induced, chemical mutagens, effect of radiation.

UNIT-V

1. Polyploidy: Nature and induction of polyploidy.
2. Genetics of larval and cocoon characters,
3. Silkworm races: Univoltine, bivoltine and multivoltine races of different tasar silkworm.
4. Maintenance of races and basic seed of different silkworm.

List of Reference Books

1. Silkworm Genetics: Illustrated By Tada Yakoyama.
2. The Genetics of The Silkworm : Byataro Tazima, 1964
3. Fundamentals of Genetics: Kalyani Pub. New Delhi. By B.D. Singh (1990)
4. Silkworm Breeding Stock : By Dr. P.A. Kovalov, CSB.-1970



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SYLLABUS B.SC. PART-I

PRACTICAL

Morphology, Anatomy & Physiology of Tasar Silkworm & Agronomy.

Tasar Silkworm-Genetics and Breeding

1. Morphology: tasar silkworm egg. Larva, pupa & moth.
2. Embryology: identification of different stages in development,
3. Molting of embryo.
4. Whole mount of larva, mouth parts, spinneret, gonad and spiracle celli.
5. Model rearing house: preparation for teaser rearing plots.
6. Disinfection: disinfection of room plot and equipment. Spraying and fumigation, material required.
7. Harvesting of cocoon: assessment of cocoon.
8. Maintenance of rearing record.
9. Qualify test of cocoons for breeding.
10. Diseases: identification of diseases of teaser worms.
11. Microscopic examination: handling of dead and diseased worms and sample examination.
12. Preservation of diseased specimen of food plant of tasar.
13. Identification of different diseases of tasar food plant.
14. Morphological studies of food plants of tasar worms.
15. Anatomy: anatomy of root, stem, leaf of food plant of tasar worms.
16. Collection of herbarium of different food plants pf tasar silkworms.
17. Rearing appliances: estimation of rearing appliances. For 50 dfls.
18. Incubation of silkworm eggs: black boxing and hatching. Recording of temperature and humidity.
19. Molting: identification & care.
20. Montages & harvesting.
21. Mitotic & meiotic chromosome of non-mulberry silkworm.
22. Visits to the areas of districts of Chhattisgarh to study tasar industries.

Scheme of Practical Examination

S.No.	Practical	Marks
1	Morphology & Identification of Tasar Silkworm/ Anatomy of Tasar	10
2	Embryological Stages of Tasar Silkworm	8
3	Identification of Specific in Fee House	8
4	Morphology and Anatomy of Food Plants Of Tasar Silkworm	6
5	Assessment of Cocoon	5
6	Field Work	4
7	Viva	4
8	Sessional & Record	5
	Total	50

MATHEMATICS

There shall be three compulsory papers. Each paper of 50 marks is divided into five units and each unit carry equal marks.

B.Sc. Part-II

Paper-I

ADVANCED CALCULUS

- UNIT-I Definition of a sequence. Theorems on limits of sequences. Bounded and monotonic sequences. Cauchy's convergence criterion. Series of non-negative terms. Comparison tests, Cauchy's integral test, Ratio tests, Raabe's, Logarithmic, De Morgan and Bertrand's tests. Alternating series, Leibnitz's theorem. Absolute and conditional convergence.
- UNIT-II Continuity, Sequential continuity, Properties of continuous functions, Uniform continuity, Chain rule of differentiability, Mean value theorems and their geometrical interpretations. Darboux's intermediate value theorem for derivatives, Taylor's theorem with various forms of remainders.
- UNIT-III Limit and continuity of functions of two variables. Partial differentiation. Change of variables. Euler's theorem on homogeneous functions. Taylor's theorem for functions of two variables. Jacobians.
- UNIT-IV Envelopes, evolutes. Maxima, minima and saddle points of functions of two variables. Lagrange's multiplier method.
- UNIT-V Beta and Gamma functions, Double and triple integrals, Dirichlet's integrals, Change of order of integration in double integrals.

REFERENCES :

1. Gabriel Klaumber, Mathematical Analysis, Marcel Dekkar, Inc. New York, 1975.
2. T.M. Apostol, Mathematical Analysis, Narosa Publishing House, New Delhi, 1985.
3. R.R. Goldberg, Real Analysis, Oxford & I.B.H. Publishing Co., New Delhi, 1970.
4. D. Soma Sundaram and B. Choudhary, A First Course in Mathematical Analysis, Narosa Publishing House, New Delhi, 1997.
5. P.K. Jain and S.K. Kaushik, An introduction to Real Analysis, S. Chand & Co., New Delhi, 2000.
6. Gorakh Prasad, Differential Calculus, Pothishala Pvt. Ltd., Allahabad.
7. Murray R. Spiegel, Theory and Problems of Advanced Calculus, Schaum Publishing Co., New York.
8. Gorakh Prasad, Integral Calculus, Pothishala Pvt. Ltd., Allahabad.
9. S.C. Malik, Mathematical Analysis, Wiley Eastern Ltd., New Delhi.
10. O.E. Stanaitis, An Introduction to Sequences, Series and Improper Integrals, Holden-Dey, Inc., San Francisco, California.
11. Earl D. Rainville, Infinite Series, The Macmillan Company, New York.
12. Chandrika Prasad, Text Book on Algebra and Theory of Equations, Pothishala Pvt. Ltd., Allahabad.
13. N. Piskunov, Differential and Integral Calculus, Peace Publishers, Moscow.
14. Shanti Narayan, A Course of Mathematical Analysis, S.Chand and Company, New Delhi.

B.Sc. Part-II
Paper-II
DIFFERENTIAL EQUATIONS

- UNIT-I Series solutions of differential equations- Power series method, Bessel and Legendre functions and their properties-convergence, recurrence and generating relations, Orthogonality of functions, Sturm-Liouville problem, Orthogonality of eigen-functions, Reality of eigen values, Orthogonality of Bessel functions and Legendre polynomials.
- UNIT-II Laplace Transformation- Linearity of the Laplace transformation, Existence theorem for Laplace transforms, Laplace transforms of derivatives and integrals, Shifting theorems. Differentiation and integration of transforms. Convolution theorem. Solution of integral equations and systems of differential equations using the Laplace transformation.
- UNIT-III Partial differential equations of the first order. Lagrange's solution, Some special types of equations which can be solved easily by methods other than the general method, Charpit's general method of solution.
- UNIT-IV Partial differential equations of second and higher orders, Classification of linear partial differential equations of second order, Homogeneous and non-homogeneous equations with constant coefficients, Partial differential equations reducible to equations with constant coefficients, Monge's methods.
- UNIT-V Calculus of Variations- Variational problems with fixed boundaries- Euler's equation for functionals containing first order derivative and one independent variable, Extremals, Functionals dependent on higher order derivatives, Functionals dependent on more than one independent variable, Variational problems in parametric form, invariance of Euler's equation under coordinates transformation.
- Variational Problems with Moving Boundaries- Functionals dependent on one and two functions, One sided variations.
- Sufficient conditions for an Extremum- Jacobi and Legendre conditions, Second Variation. Variational principle of least action.

REFERENCES :

1. Erwin Kreyszig, Advanced Engineering Mathematics, John Wiley & Sons, Inc., New York, 1999.
2. D.A. Murray, Introductory Course on Differential Equations, Orient Longman, (India), 1967.
3. A.R. Forsyth, A Treatise on Differential Equations, Macmillan and Co. Ltd., London.
4. Lan N. Sneddon, Elements of Partial Differential Equations, McGraw-Hill Book Company, 1988.
5. Francis B. Hilderbrand, Advanced Calculus for Applications, Prentice Hall of India Pvt. Ltd., New Delhi, 1977.
6. Jane Cronin, Differential equations, Marcel Dekkar, 1994.
7. Frank Ayres, Theory and Problems of Differential Equations, McGraw-Hill Book Company, 1972.
8. Richard Bronson, Theory and Problems of Differential Equations, McGraw-Hill, Inc., 1973.
9. A.S. Gupta, Calculus of variations with-Applications, Prentice-Hall of India, 1997.
10. R. Courant and D. Hilbert, Methods of Mathematical Physics, Vols. I & II, Wiley-Interscience, 1953.
11. I.M. Gelfand and S.V. Fomin, Calculus of Variations, Prentice-Hill, Englewood Cliffs (New Jersey), 1963.
12. A.M. Arthurs, Complementary Variational Principles, Clarendon Press, Oxford, 1970.
13. V. Kornkov, Variational Principles of Continuum Mechanics with Engineering Applications, Vol. I, Reidel Publ. : Dordrecht, Holland, 1985.
14. T. Oden and J.N. Reddy, Variational Methods in Theoretical Mechanics, Springer-Verlag, 1976.

B.Sc. Part-II
Paper-III
MECHANICS

STATICS

UNIT-I Analytical conditions of Equilibrium, Stable and unstable equilibrium. Virtual work, Catenary.

UNIT-II Forces in three dimensions, Poinsot's central axis, Null lines and planes.

DYNAMICS

UNIT-III Simple harmonic motion. Elastic strings. Velocities and accelerations along radial and transverse directions, Projectile, Central orbits.

UNIT-IV Kepler's laws of motion, velocities and acceleration in tangential and normal directions, motion on smooth and rough plane curves.

UNIT-V Motion in a resisting medium, motion of particles of varying mass, motion of a particle in three dimensions, acceleration in terms of different co-ordinate systems.

REFERENCES :

1. S.L. Loney, Statics, Macmillan and Company, London.
2. R.S. Verma, A Text Book on Statics, Pothishala Pvt. Ltd., Allahabad.
3. S.L. Loney, An Elementary Treatise on the Dynamics of a particle and of rigid bodies, Cambridge University Press, 1956.

B.Sc. Part-II
Paper-I
THERMODYNAMICS, KINETIC THEORY AND STATISTICAL PHYSICS

Unit-1 The laws of thermodynamics : The Zeroth law, first law of thermodynamics, internal energy as a state function, reversible and irreversible change, Carnot's cycle, Carnot theorem, second law of thermodynamics. Clausius theorem inequality. Entropy, Change of entropy in simple cases (i) Isothermal expansion of an ideal gas (ii) Reversible isochoric process (iii) Free adiabatic expansion of an ideal gas. Concept of entropy, Entropy of the universe. Entropy change in reversible and irreversible processes, Entropy of Ideal gas, Entropy as a thermodynamic variable, S-T diagram, Principle of increase of entropy. The thermodynamic scale of temperature, Third law of thermodynamics, Concept of negative temperature.

Unit-2 Thermodynamic functions, Internal energy, Enthalpy, Helmholtz function and Gibb's free energy, Maxwell's thermodynamical equations and their applications, TdS equations, Energy and heat capacity equations Application of Maxwell's equation in Joule-Thomson cooling, adiabatic cooling of a system, Van der Waals gas, Clausius-Clapeyron heat equation. Blackbody spectrum, Stefan-Boltzmann law, Wien's displacement law, Rayleigh-Jean's law, Planck's quantum theory of radiation.

Unit-3 Maxwellian distribution of speeds in an ideal gas: Distribution of speeds and velocities, experimental verification, distinction between mean, rms and most probable speed values. Doppler broadening of spectral lines. Transport phenomena in gases: Molecular collisions mean free path and collision cross sections. Estimates of molecular diameter and mean free path. Transport of mass, momentum and energy and interrelationship, dependence on temperature and pressure.

Behaviour of Real Gases: Deviations from the Ideal Gas Equation. The Virial Equation. Andrew's Experiments on CO₂ Gas. Critical Constants.

Unit-4 The statistical basis of thermodynamics: Probability and thermodynamic probability, principle of equal a priori probabilities, statistical postulates. Concept of Gibb's ensemble, accessible and inaccessible states. Concept of phase space, γ phase space and μ phase space. Equilibrium before two systems in thermal contact, probability and entropy, Boltzmann entropy relation. Boltzmann canonical distribution law and its applications, law of equipartition of energy.

Handwritten signature
11/6/18

Handwritten signature: swam
11/6/2018

Handwritten signature
11/6/18

Handwritten signature
11-6-18

Handwritten signature
11/06/18

Handwritten signature
11/06/18

Transition to quantum statistics: 'h' as a natural constant and its implications, cases of particle in a one-dimensional box and one-dimensional harmonic oscillator.

Unit-5 Indistinguishability of particles and its consequences, Bose-Einstein & Fermi-Dirac conditions, Concept of partition function, Derivation of Maxwell-Boltzmann, Bose-Einstein and Fermi-Dirac Statistics, Limits of B-E and F-D statistics to M-B statistics. Application of B-E statistics to black body radiation, Application of F-D statistics to free electrons in a metal.

TEXT AND REFERENCE BOOKS:

1. B.B. Laud, "Introduction to Statistical Mechanics" (Mcmillan 1981)
2. F. Reif : "Statistical Physics" (Mcgraw-Hill, 1998).
3. K, Haung : "Statistical Physics" (Wiley Eastern, 1988).
4. Thermal and statistical Physics: R.K. Singh, Y.M. Gupta and S. Sivraman.
5. Statistical Physics: Berkeley Physics Course, Vol. 5
6. Physics (Part-2): Editor, Prof. B.P. Chandra, M.P. Hindi Granth Academy.
7. Heat and Thermodynamics: K.W. Zeemansky.
8. Thermal Physics: B.K. Agarwal.
9. Heat and Thermodynamics: Brij Lal and N. Subramanyam.
10. Heat and Thermodynamics: Dayal, Verma and Pandey.
11. A Treatise on Heat: M.N. Saha and B.N. Srivastava.

SL
11/6/18

Push
11-6-18

Swarn
11/6/2018

TC
11/06/18

Arun
11/6/18
Mh
11/06/18

Paper-II
WAVES, ACOUSTICS AND OPTICS

Unit-1 Waves in media: Speed of transverse waves on uniform string, speed of longitudinal waves in a fluid, energy density and energy transmission in waves. Waves over liquid surface: gravity waves and ripples. Group velocity and phase velocity and relationship between them. Production and detection of ultrasonic and infrasonic waves and applications.

Reflection, refraction and diffraction of sound : Acoustic impedance of a medium, percentage reflection & refraction at a boundary, impedance matching for transducers, diffraction of sound, principle of a sonar system, sound ranging.

Unit-2 Fermat's Principle of extremum path, the aplanatic points of a sphere and other applications. Cardinal points of an optical system, thick lens and lens combinations. Lagrange equation of magnification, telescopic combinations, telephoto lenses. Monochromatic aberrations and their reductions; aspherical mirrors and Schmidt corrector plates, aplanatic points, oil immersion objectives, meniscus lens.

Optical instruments: Entrance and exit pupils, need for a multiple lens eyepiece, common types of eyepieces. (Ramsdon and Hygen's eyepieces).

Unit-3 Interference of light: The principle of superpositions, two slit interference, coherence requirement for the sources, optical path retardations, Conditions for sustained interference, Theory of interference, Thin films. Newton's rings and Michelson interferometer and their applications its application for precision determinations of wavelength, wavelength difference and the width of spectral lines. Multiple beam interference in parallel film and Fabry-Perot interferometer. Rayleigh refractometer, Twyman-Green interferometer and its uses.

Unit-4 Diffraction, Types of Diffraction, Fresnel's diffraction, half-period zones, phasor diagram and integral calculus methods, the intensity distribution, Zone plates, diffraction due to straight edge, Fraunhofer diffraction due to a single slit and double slit, Diffraction at N-Parallel slit, Plane Diffraction grating, Rayleigh criterion, resolving power of grating, Prism, telescope.

Signature
11/6/18

Signature
11/6/2018

Signature
11/6/18

Signature
11-6-18

Signature
11/06/18

Signature
11/06/18

Polarized light and its mathematical representation, Production of polarized light by reflection, refraction and scattering. Polarization by double refraction and Huygen's theory, Nicol prism, Retardation plates, Production and analysis of circularly and elliptically polarized light. Optical activity and Fresnel's theory, Biquartz polarimeter.

Unit-5 Laser system: Basic properties of Lasers, coherence length and coherence time, spatial coherence of a source, Einstein's A and B coefficients, Spontaneous and induced emissions, conditions for laser action, population inversion, Types of Laser : Ruby and He-Ne laser and. Applications of laser : Application in communication, Holography and Basics of non linear optics and Generation of Harmonic.

TEXT AND REFERENCE BOOKS:

1. A.K. Ghatak, 'Physical Optics'
2. D.P. Khandelwal, 'Optical and Atomic Physics' (Himalaya Publishing House, Bombay, 1988)
3. K.D. Moltev; 'Optics' (Oxford University Press)
4. Sears: 'Optics'
5. Jenkins and White: 'Fundamental of Optics' (McGraw-Hill)
6. B.B. Laud: 'Lasers and Non-linear Optics' (Wiley Eastern 1985)
7. Smith and Thomson: 'Optics' (John Wiley and Sons)
8. Berkely Physics Courses: Vol.-III, 'Waves and Oscillations'
9. I.G. Main, 'Vibrations and Waves' (Cambridge University Press)
10. H.J. Pain: 'The Physics of Vibrations and Waves' (MacMillan 1975)
11. Text Book of Optics: B.K. Mathur
12. B.Sc. (Part III) Physics: Editor: B.P. Chandra, M.P. Hindi Granth Academy.
13. F. Smith and J.H. Thomson, Manchester Physics series: optics (John wiley, 1971)
14. Born and Wolf : 'Optics'.
15. Physical Optics: B. K. Mathur and T. P. Pandya.
16. A textbook of Optics: N. Subrahmanyam, Brijlal and M. N. Avadhanulu.
17. Geometrical and Physical Optics: Longhurst.
18. Introduction to Modern Optics: G. R. Fowels.
19. Optics: P. K. Srivastav.

[Handwritten signature]
11/6/18

[Handwritten signature]
11/6/2018

[Handwritten signature]
11/6/18

[Handwritten signature]
11-6-18

[Handwritten signature]
11/06/18

[Handwritten signature]
11/06/18

PRACTICALS

Minimum 16 (Eight from each group)

Experiments out of the following or similar experiments of equal standard

1. Study of Brownian motion.
2. Study of adiabatic expansion of a gas.
3. Study of conversion of mechanical energy into heat.
4. Heating efficiency of electrical kettle with varying voltage.
5. Study of temperature dependence of total radiation.
6. Study of temperature dependence of spectral density of radiation.
7. Resistance thermometry.
8. Thermo emf thermometry.
9. Conduction of heat through poor conductors of different geometries.
10. Experimental study of probability distribution for a two-option system using a coloured dice.
11. Study of statistical distribution on nuclear disintegration data (GM counter used as a black box).
12. Speed of waves on a stretched strings.
13. Studies on torsional waves in a lumped system.
14. Study of interference with two coherent source of sound.
15. Chlandi's figures with varying excitation and loading points.
16. Measurements of sound intensities with different situations.
17. Characteristics of a microphone-loudspeakers system
18. Designing an optical viewing system.
19. Study of monochromatic defects of images.
20. Determining the principle point of a combination of lenses.
21. Study of interference of light (biprism or wedge film).
22. Study of diffraction at a straight edge or a single slit.
23. Study of F-P etalon fringes.
24. Study of diffraction grating and its resolving power.
25. Resolving power of telescope system.
26. Polarization of light by reflection; also cos-squared law.
27. Study of optical rotation for any system.
28. Study of laser as a monochromatic coherent source.
29. Study of a divergence of laser beam.
30. Calculation of days between two dates of a year.
31. To check if triangle exists and the type of a triangles.
32. To find the sum of the sine and cosines series and print out the curve.

[Signature]
11/6/18

[Signature]
11/6/2018

[Signature]
11/6/18

[Signature]
11.6.18

[Signature]
11/06/18

[Signature]
11/06/18

33. To solve simultaneous equation by elimination method.
34. To prepare a mark-list of polynomials.
35. Fitting a straight line or a simple curve
36. Convert a given integer into binary and octal systems and vice versa .
37. Inverse of a matrix.
38. Spiral array.

TEXT AND REFERENCE BOOKS

1. D.P. Khandelwal, Optics and Atomic physics (Himalaya Publishing house, Bombay 1988).
2. D.P. Khandelwal, A Laboratory Manual for Undergraduate Classes (Vani Publishing House, New Delhi).
3. S. Lipschutz and a Poe, Schaum's outline of theory and Problems of Programming with Fortran(McGraw-hill Book Company 1986).
4. C Dixon, Numerical Analysis .

[Signature]
11/6/18

[Signature]
11/6/2018

[Signature]
11/6/18

[Signature]
11-6-18

[Signature]
11/06/18

[Signature]
11/06/18

NEW CURRICULUM OF B.Sc. PART II

CHEMISTRY

The new curriculum will comprise of three papers of 33, 33 and 34 marks each and practical work of 50 marks. The Curriculum is to be completed in 180 working days as per UGC norms and conforming to the directives of Govt. of Chhattisgarh. The theory papers are of 60 hrs. each duration and practical work of 180 hrs duration.

Paper – I **INORGANIC CHEMISTRY** **60 Hrs., Max Marks 33**

UNIT-I

CHEMISTRY OF TRANSITION SERIES ELEMENTS

Transition Elements: Position in periodic table, electronic configuration, General Characteristics, *viz.*, atomic and ionic radii, variable oxidation states, ability to form complexes, formation of coloured ions, magnetic moment μ_{so} (spin only) and μ_{eff} and catalytic behaviour. General comparative treatment of 4d and 5d elements with their 3d analogues with respect to ionic radii, oxidation states and magnetic properties.

UNIT-II

A. Oxidation and Reduction: Redox potential, electrochemical series and its applications, Principles involved in extraction of the elements.

B. COORDINATION COMPOUNDS: Werner's theory and its experimental verification, IUPAC nomenclature of coordination compounds, isomerism in coordination compounds. Stereochemistry of complexes with 4 and 6 coordination numbers. Chelates, polynuclear complexes.

UNIT-III

COORDINATION CHEMISTRY

Valence bond theory (inner and outer orbital complexes), electroneutrality principle and back bonding. Crystal field theory, Crystal field splitting and stabilization energy, measurement of $10 Dq$ (Δ_o), CFSE in weak and strong fields, pairing energies, factors affecting the magnitude of $10 Dq$ (Δ_o , Δ_t). Octahedral vs. tetrahedral coordination.

UNIT-IV

A. CHEMISTRY OF LANTHANIDE ELEMENTS

Electronic structure, oxidation states and ionic radii and lanthanide contraction, complex formation, occurrence and isolation, lanthanide compounds.

B. CHEMISTRY OF ACTINIDES

General features and chemistry of actinides, chemistry of separation of Np, Pu and Am from uranium, similarities between the later actinides and the later lanthanides

UNIT-V

A. ACIDS BASES : Arrhenius, Bronsted-Lowry, conjugate acids and bases, relative strengths of acids and bases, the Lux-flood, solvent system and Lewis concepts of acids and bases.

B. NON-AQUEOUS SOLVENTS

.Physical properties of a solvent, types of solvents and their general characteristics, reaction in non-aqueous solvents with reference to liquid ammonia and liquid sulphur dioxide, HF, H₂SO₄ , Ionic liquids.

REFERENCE BOOKS

1. Basic Inorganic Chemistry, F. A. Cotton, G. Wilkinson and P. L. Gaus, Wiley
2. Concise Inorganic Chemistry, J. D. Lee, ELBS
3. Concepts of Models of Inorganic Chemistry, B. Douglas, D. Mc Daniel and J. Alexander, John Wiley.
4. Inorganic Chemistry, D. E. Shriver, P. W. Atkins and C. H. Langford, Oxford.
5. Inorganic Chemistry, W. W. Porterfield, Addison – Wiley.
6. Inorganic Chemistry, A. G. Sharp, ELBS.
7. Inorganic Chemistry, G. L. Miessler and D. A. Tarr, Prentice Hall.
8. Advanced Inorganic Chemistry, Satya Prakash.
9. Advanced Inorganic Chemistry, Agarwal and Agarwal
10. Advanced Inorganic Chemistry, Puri, Sharma, S. Naginchand
11. Inorganic Chemistry, Madan, S. Chand
12. Aadhunik Akarbanic Rasayan, A. K. Shrivastav & P. C. Jain, Goel Pub
13. Uchchattar Akarbanic Rasayan, satya Prakash & G. D. Tuli, Shyamal Prakashan
14. Uchchattar Akarbanic Rasayan, Puri & Sharma
15. Selected topic in Inorganic Chemistry by Madan Malik & Tuli, S. Chand.

UNIT-I

CHEMISTRY OF ORGANIC HALIDES

Alkyl halides: Methods of preparation, nucleophilic substitution reactions – S_N1 , S_N2 and S_Ni mechanisms with stereochemical aspects and effect of solvent etc.; nucleophilic substitution, elimination reactions.

Aryl halides: Preparation, including preparation from diazonium salts, Nucleophilic Aromatic Substitution; S_NAr , Benzyne mechanism. Relative reactivity of alkyl, allyl/benzyl, vinyl and aryl halides towards nucleophilic substitution reactions.

UNIT-II

ALCOHOLS

A. Alcohols: Nomenclature, preparation, properties and relative reactivity of 1° , 2° , 3° alcohols, Bouvaelt-Blanc Reduction for the preparation of alcohols, Dihydric alcohols – methods of formation, chemical reactions of vicinal glycols, oxidative cleavage [$Pb(OAc)_4$ and HIO_4] and pinacol-pinacolone rearrangement.

B. Trihydric alcohols - Nomenclature, methods of formation, chemical reactions of glycerol.

PHENOLS

A. Structure and bonding in phenols, physical properties and acidic character, Comparative acidic strength of alcohols and phenols, acylation and carboxylation.

B. Mechanism of Fries rearrangement, Claisen rearrangement, Gatterman synthesis, Hauben-Hoesh reaction, Lederer-Manasse reaction and Reimer-Tiemann reaction.

UNIT-III

ALDEHYDES AND KETONES

A. Nomenclature, structure and reactivity of carbonyl group. General methods of preparation of aldehydes and ketones.

Mechanism of nucleophilic addition to carbonyl groups: Benzoin, Aldol, Perkin and Knoevenagel condensation. Condensation with ammonia and its derivatives, Wittig reaction, Mannich reaction, Beckmann and Benzil- Benzilic rearrangement.

B. Use of acetate as protecting group, Oxidation of aldehydes, Baeyer-Villiger oxidation of ketones, Cannizzaro reaction, MPV, Clemmensen reduction, Wolf-Kishner reaction, $LiAlH_4$ and $NaBH_4$ reduction. Halogenation of enolizable ketones, An introduction to α,β -unsaturated aldehydes and

ketones.

UNIT-IV

A. CARBOXYLIC ACIDS

Preparation, Structure and bonding, Physical and chemical properties including, acidity of carboxylic acids, effects of substituents on acid strength, Hell-Volhard Zeilinsky reaction. Reduction of carboxylic groups, Mechanism of decarboxylation.

Di carboxylic acids: Methods of formation and effect of heat and dehydrating agents, Hydroxyacids.

B. CARBOXYLIC ACID DERIVATIVES

Structure of acid chlorides, esters, amides and acid anhydrides, Relative stability of acyl derivatives.

Physical properties, inter-conversion of acid derivatives by nucleophilic acyl substitution.

Mechanism of acid and base catalyzed esterification and hydrolysis.

UNIT-V

ORGANIC COMPOUNDS OF NITROGEN

A. Preparation of nitroalkanes and nitroarenes. Chemical reactions of nitroalkanes. Mechanism of nucleophilic substitution in nitroarenes and their reduction in acidic, neutral and alkaline medium.

B. Reactivity, structure and nomenclature of amines, physical properties. Stereochemistry of amines. Separation of mixture of primary, secondary and tertiary amines. Structural features affecting basicity of amines. Preparation of alkyl and aryl amines (reduction of nitro compounds and nitriles), reductive amination of aldehydic and ketonic compounds. Gabriel-Phthalimide reaction, Hofmann-Bromamide reaction, Reactions of amines, electrophilic aromatic substitution of aryl amines, Reaction of amines with nitrous acid. Synthetic transformations of aryl diazonium salts, Azo coupling.

REFERENCE BOOKS

1. Organic Chemistry, Morrison and Boyd, Prentice-Hall.
2. Organic Chemistry, L. G. Wade Jr. Prentice Hall.
3. Fundamentals of Organic Chemistry, Solomons, John Wiley.
4. Organic Chemistry, Vol I, II, III S. M. Mukherjee, S. P. Singh and R. P. Kapoor, Wiley Easters (New Age).
5. Organic Chemistry, F. A. Carey, McGraw Hill.
6. Introduction to Organic Chemistry, Struiweisser, Heathcock and Kosover, Macmillan.
7. Organic Chemistry, P. L. Soni.

8. Organic Chemistry, Bahl and Bahl.
9. Organic Chemistry, Joginder Singh.
10. Carbanic Rasayan, Bahl and Bahl.
11. Carbanic Rasayan, R. N. Singh, S. M. I. Gupta, M. M. Bakidia & S. K. Wadhwa.
12. Carbanic Rasayan, Joginder Singh.

Paper – III
PHYSICAL CHEMISTRY

60 Hrs., Max Marks 34

UNIT-I

A. THERMODYNAMICS-I

Intensive and extensive variables; state and path functions; isolated, closed and open systems; Zeroth law of thermodynamics. First law: Concept of heat, work, internal energy and statement of first law; enthalpy, Relation between heat capacities, calculations of q , w , U and H for reversible, irreversible and free expansion of gases under isothermal and adiabatic conditions. Joule-Thompson expansion, inversion temperature of gases, expansion of ideal gases under isothermal and adiabatic condition

B. THERMO CHEMISTRY

Thermochemistry, Laws of Thermochemistry, Heats of reactions, standard states; enthalpy of formation of molecules and ions and enthalpy of combustion and its applications; calculation of bond energy, bond dissociation energy and resonance energy from thermochemical data, effect of temperature (Kirchhoff's equations) and pressure on enthalpy of reactions, Adiabatic flame temperature, explosion temperature.

UNIT-II

A. THERMODYNAMICS-II

Second Law of Thermodynamics: Spontaneous process, Second law, Statement of Carnot cycle and efficiency of heat engine, Carnot's theorem, thermodynamic state of temperature.

Concept of entropy: Entropy change in a reversible and irreversible process, entropy change in isothermal reversible expansion of an ideal gas, entropy change in isothermal mixing of ideal gases, physical signification of entropy, Molecular and statistical interpretation of entropy.

- B.** Gibbs and Helmholtz free energy, variation of G and A with pressure, volume, temperature, Gibbs-Helmholtz equation, Maxwell relations, Elementary idea of Third law of Thermodynamics, concept of residual entropy, calculation of absolute entropy of molecule.

UNIT III

A CHEMICAL EQUILIBRIUM

Criteria of thermodynamic equilibrium, degree of advancement of reaction, chemical equilibria in ideal gases. Concept of Fugacity, Thermodynamic derivation of relation between Gibbs free energy of reaction and reaction quotient. Coupling of exergonic and endergonic reactions. Equilibrium constants and their quantitative dependence on temperature, pressure and concentration. Thermodynamic derivation of relations between the various equilibrium constants K_p , K_c and K_x . Le Chatelier principle (quantitative treatment). Equilibrium between ideal gas and a pure condensed phase.

B IONIC EQUILIBRIA

Ionization of weak acids and bases, pH scale, common ion effect; dissociation constants of mono protic acids (exact treatment). Salt hydrolysis-calculation of hydrolysis constant, degree of hydrolysis and pH for different salts. Buffer solutions; derivation of Henderson equation and its applications. Solubility and solubility product of sparingly soluble salts – applications of solubility product principle.

UNIT-IV

PHASE EQUILIBRIUM

A. Phase rule, Phase, component and degree of freedom, derivation of Gibbs phase rule, Clausius-Claperon equation and its applications to Solid-Liquid, Liquid-Vapor and solid-Vapor, limitation of phase rule, applications of phase rule to one component system: Water system and sulphur system.

Application of phase rule to two component system: Pb-Ag system, desilverization of lead, Zn-Mg system Ferric chloride-water system, congruent and incongruent, melting point and eutectic point.

Three component system: Solid solution liquid pairs.

B. Nernst distribution law, Henry's law, application, solvent extraction

UNIT V

PHOTOCHEMISTRY

Characteristics of electromagnetic radiation, Interaction of radiation with matter, difference between thermal and photochemical processes, Lambert-Beer's law and its limitations, physical significance of absorption coefficients. Laws of photochemistry: Grothus-Drapper law, Stark-Einstein law, quantum yield, actinometry, examples of low and high quantum yields, Photochemical equilibrium and the differential rate of photochemical reactions, Quenching, Role of photochemical reaction in biochemical process.

Jablonski diagram depicting various process occurring in the excited state, qualitative description of fluorescence, phosphorescence, non-radiative processes (internal conversion, intersystem

crossing), photosensitized reactions, energy transfer processes {simple examples}, photostationary states, Chemiluminescence.

REFERENCE BOOKS

1. Physical Chemistry, G. M. Barrow, International student edition, McGraw Hill.
2. University General Chemistry, C. N. R. Rao, Macmillan.
3. Physical Chemistry, R. A. Alberty, Wiley Eastern.
4. The elements of physical chemistry, Wiley Eastern.
5. Physical Chemistry through problems, S. K. Dogra & S. Dogra, Wiley Eastern.
6. Physical Chemistry, B. D. Khosla,.
7. Physical Chemistry, Puri & Sharma.
8. Bhautik Rasayan, Puri, Sharma and Pathania, Vishal Publishing Company.
9. Bhautik Rasayan, P. L. Soni.
10. Bhautik Rasayan, Bahl and Tuli.
11. Physical Chemistry, R. L. Kapoor, Vol I-IV .
12. Chemical kinetics, K. J. Laidler, Pearson Educations, New Delhi (2004).

Paper –IV

LABORATORY COURSE

INORGANIC CHEMISTRY

Qualitative semimicro analysis of mixtures containing 5 radicals. Emphasis should be given to the understanding of the chemistry of different reactions. The following radicals are suggested:

CO_3^{2-} , NO_2^- , S^{2-} , SO_3^{2-} , $\text{S}_2\text{O}_3^{2-}$, CH_3COO^- , F^- , Cl^- , Br^- , I^- , NO_3^- , BO_3^{3-} , $\text{C}_2\text{O}_4^{2-}$, PO_4^{3-} , NH_4^+ , K^+ , Pb^{2+} , Cu^{2+} , Cd^{2+} , Bi^{3+} , Sn^{2+} , Sb^{3+} , Fe^{3+} , Al^{3+} , Cr^{3+} , Zn^{2+} , Mn^{2+} , Co^{2+} , Ni^{2+} , Ba^{2+} , Sr^{2+} , Ca^{2+} , Mg^{2+} .

Mixtures should preferably contain one interfering anion, or insoluble component (BaSO_4 , SrSO_4 , PbSO_4 , CaF_2 or Al_2O_3) or combination of anions e.g. CO_3^{2-} and SO_3^{2-} , NO_2^- and NO_3^- , Cl^- , Br^- , and I^- .

Volumetric analysis

- (a) Determination of acetic acid in commercial vinegar using NaOH.
 - (b) Determination of alkali content-antacid tablet using HCl.
 - (c) Estimation of calcium content in chalk as calcium oxalate by permanganometry.
 - (d) Estimation of hardness of water by EDTA.
 - (e) Estimation of ferrous & ferric by dichromate method.
 - (f) Estimation of copper using thiosulphate.
- Principles involved in chromatographic separations. Paper chromatographic separation of following metal ions: i. Ni (II) and Co (II) ii. Fe (III) and Al (III)

ORGANIC CHEMISTRY

- Detection of elements (X, N, S).
- Qualitative analysis of unknown organic compounds containing simple functional groups (alcohols, carboxylic acids, phenols, nitro, amine, amide, and carbonyl compounds, carbohydrates)
- Preparation of Organic Compounds:
 - (i) m-dinitrobenzene, (ii) Acetanilide, (iii) Bromo/Nitro-acetanilide, (iv) Oxidation of primary alcohols-Benzoic acid from benzylalcohol, (v) azo dye.

PHYSICAL CHEMISTRY

Transition Temperature

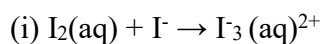
- Determination of the transition temperature of the given substance by thermometric/ dilatometric method (e.g. $\text{MnCl}_2 \cdot 4\text{H}_2\text{O}$ / $\text{SrBr}_2 \cdot 2\text{H}_2\text{O}$).

Thermochemistry

- Determination of heat capacity of a calorimeter for different volumes using change of enthalpy data of a known system (method of back calculation of heat capacity of calorimeter from known enthalpy of solution or enthalpy of neutralization).
- Determination of heat capacity of the calorimeter and enthalpy of neutralization of hydrochloric acid with sodium hydroxide.
- To determine the solubility of benzoic acid at different temperature and to determine ΔH of the dissolution process.
- To determine the enthalpy of neutralization of a weak acid/ weak base versus strong base/ strong acid and determine the enthalpy of ionization of the weak acid/ weak base.
- To determine the enthalpy of solution of solid calcium chloride and calculate the lattice energy of calcium chloride from its enthalpy data using Born Haber cycle.

Phase Equilibrium

- To study the effect of a solute (e.g. NaCl, Succinic acid) on the critical solution temperature of two partially miscible liquids (e.g. phenol-water system) and to determine the concentration of that solute in the given phenol-water system.
- To construct the phase diagram of two component system (e.g. diphenylamine–benzophenone) by cooling curve method.
- Distribution of acetic/ benzoic acid between water and cyclohexane.
- Study the equilibrium of at least one of the following reactions by the distribution method:



Molecular Weight Determination

Determination of molecular weight by Rast Camphor and Landsburger method.

Note: Experiments may be added/ deleted subject to availability of time and facilities.

Reference Books

1. Mann, F.G. & Saunders, B.C. Practical Organic Chemistry, Pearson Education (2009)
2. Furniss, B.S., Hannaford, A.J., Smith, P.W.G. & Tatchell, A.R. Practical Organic Chemistry, 5th Ed. Pearson (2012)
3. Ahluwalia, V.K. & Aggarwal, R. Comprehensive Practical Organic Chemistry: Preparation and Quantitative Analysis, University Press (2000). 22
4. Ahluwalia, V.K. & Dhingra, S. Comprehensive Practical Organic Chemistry: Qualitative Analysis, University Press (2000).
5. Khosla, B. D.; Garg, V. C. & Gulati, A. Senior Practical Physical Chemistry, R. Chand & Co.: New Delhi (2011). Garland, C. W.; Nibler, J. W. & Shoemaker, D. P. Experiments in Physical Chemistry 8th Ed.; McGraw-Hill: New York (2003).
6. Halpern, A. M. & McBane, G. C. Experimental Physical Chemistry 3rd Ed.; W.H. Freeman & Co.: New York

Hrs.5

PRACTICAL EXAMINATION

M.M.50

Three Experiments are to be performed.

1. Inorganic – Qualitative semimicro analysis of mixtures. **12 marks**

OR

One experiment from synthesis and analysis by preparing the standard solution.

2. (a) Identification of the given organic compound & determine its M.Pt./B.Pt.

6 marks

(b) Determination of R_f value and identification of organic compounds by paper chromatography.

6 marks

3. Any one physical experiment that can be completed in two hours including calculations.

12 marks

4. Viva

10 marks

5. Sessional

04 marks

In case of Ex-Students one marks will be added to each of the experiment.

MICROBIOLOGY

BSc-2nd

Paper- I: Molecular Biology and Genetic Engineering

UNIT-1: FUNDAMENTALS OF MOLECULAR BIOLOGY

History and scope of molecular biology, concept and mechanism of heredity. DNA as genetic material- experimental evidences. DNA replication- mechanism, process and enzymes/proteins involved in replication.

UNIT-2: CENTRAL DOGMA OF PROTEIN SYNTHESIS

Transcription- initiation, elongation, termination, RNA polymerases and sigma factor. Transcription inhibitors (antibiotics, drugs). Translation- initiation, elongation and termination. Factors involved in translation. Genetic code.

UNIT-3: MUTATION AND DNA REPAIR MECHANISM

Introduction and Types of Gene mutations- Base substitution, frame shift mutation (insertion, deletion, miss-sense, nonsense mutation.) mutagens – physical and chemical. Reverse mutation in bacteria. DNA repair mechanism (mismatch repair, photo-reactivation, excision and SOS repair). Beneficial and harmful effect of mutation.

UNIT-4: GENE REGULATION

Concept of gene- Cistron, Recon, Muton. Operon Concept- lac Operon, tryptophan Operon, His Operon. Activator, Co-activator and Repressor. Introduction to Bioinformatics- Elementary genome Database.

UNIT-5: GENETIC ENGINEERING

Basic concept of Genetic Engineering, DNA modifying enzymes Restriction endonuclease, DNA ligase, terminal transferase. Vectors- pBR322, pUC19, BAC and YAC. Phage based vectors, expression of vector. Transformation – physical and chemical method. Bacterial Host. Screening of recombinant vector Blue white Screening, Colony Hybridization.

Text Books Recommended:

1. Gene Cloning by T.A. Brown.
2. General Microbiology by Power and Daganiwala.
3. Zinssers Microbiology by KJ Wolfgang, McGraw- HJill Company.
4. Microbial Genetics by RM Stanley, F David and EC John.
5. Bacteriological Techniques by FJ Baker.
6. .Molecular Biology of the Cell; *3rd Edition*; Bruce Alberts ,et.al; Garland Publishing.
7. Cell biology; C.B. Powar; Himalaya Publishing House; Fifth edition
8. Cell & Molecular Biology; Gerald Karp; Fourth edition
9. A Textbook of Microbiology; Dubey&Maheshwari; S.chand& Sons.
10. Cell biology & Genetics; P. K. Gupta
11. Introduction to Bioinformatics; T K Atwood and D J Parry-Smith; Pearson Education Ltd

Handwritten signatures of five individuals: Sathana, Phoroll, ASB, DSValkalochkar, and Amirala.

Paper- II: Bioinstrumentation and Biostatistics

UNIT-1: MICROSCOPY AND CENTRIFUGATION

Simple and compound light microscope, Bright field, Dark field, Phase contrast and Electron microscope. Centrifugation- principle and types of centrifuges (analytical and preparatory), types of centrifugation- differential and rate zonal centrifugation.

UNIT-2: pH metry and chromatography

Principle of pH meter, types of electrodes, factors affecting pH measurements, and application of pH meter. Chromatography- principle, types- paper, TLC and column chromatography, HPLC.

UNIT-3: SPECTROPHOTOMETRY

Electromagnetic spectrum, Beers-Lamberts law, Types (Principles, working and application)- colorimeter, UV - Vis Spectrophotometry and IR- Spectrophotometry, Turbidometry.

UNIT-4: Electrophoresis and X-Ray Diffraction

Principle of electrophoresis, instrumentation and Application, types of Paper, Gel electrophoresis and Immunoelectrophoresis. X-ray diffraction- principle and application.

UNIT-5: Biostatistics

Data- Types, characteristics, presentation and distribution. Data analysis- central tendency (Mean, Median and Mode), Deviation (variance SD and SE). Concept of probability.

Text Books Recommended:

1. Introduction to Instrumental analysis by Robert Braun.
2. Instrumental Techniques by Upadhyay and Upadhyay.
3. Instrumental Methods of Chemical Analysis by BK Sharma.
4. Bio statistics; Sunder Rao
5. Statistical Methods; S. P. Gupta; Sultan Chand & Sons



Sallana
Phorale
ASB
Dsvak kaledhar
Amirale

PRACTICAL**M. M. 50**

Determination of antibiotic resistance by plating method.
 Assaying of microbial enzymes; Catalase, Proteases, Peroxidases,
 Cellulase, Cellobioases, Amylase, Diastase.
 Exercise on paper, thin layer, column chromatography.
 Exercise on paper and gel electrophoresis.
 determination of pH of various water and soil sample.
 testing of lambert beer's law.
 Determination of lamda max of dye by spectrophotometer
 Isolation of resistant bacteria from soil and water sample

Scheme of Practical Examination

Time - 4 hours

M.M. 50

1. Exercise on spectrophotometer/ pH meter	10
2. Exercise on chromatography	10
3. Exercise on genetics	05
4. Spotting (1-5)	10
5. Viva-Voce	05
6. Sessional	10

Total 50

SallanaPharalkASBDSValkalakarAmiralo

B. Sc. Part II

ELECTRONICS

Paper I

ELB 201 : COMMUNICATION ELECTRONICS

Theory:

Max. Marks :50

Unit-1

Electronic communication: Introduction to communication – means and modes. Need for modulation. Block diagram of an electronic communication system. Brief idea of frequency allocation for radio communication system in India (TRAI). Electromagnetic communication spectrum, band designations and usage. Channels and base-band signals. Concept of Noise, signal-to-noise (S/N) ratio.

Unit-2

Analog Modulation: Amplitude Modulation, modulation index and frequency spectrum. Generation of AM (Emitter Modulation), Amplitude Demodulation (diode detector), Concept of Single side band generation and detection. Frequency Modulation (FM) and Phase Modulation (PM), modulation index and frequency spectrum, equivalence between FM and PM, Generation of FM using VCO, FM detector (slope detector), Qualitative idea of Super heterodyne receiver

Analog Pulse Modulation: Channel capacity, Sampling theorem, Basic Principles-PAM, PWM, PPM, modulation and detection technique for PAM only, Multiplexing.

Unit-3

Digital Pulse Modulation: Need for digital transmission, Pulse Code Modulation, Digital Carrier Modulation Techniques, Sampling, Quantization and Encoding. Concept of Amplitude Shift Keying (ASK), Frequency Shift Keying (FSK), Phase Shift Keying (PSK), and Binary Phase Shift Keying (BPSK).

Optical Communication: Introduction of Optical Fiber, Block Diagram of optical communication system.

Unit-4

Introduction to Communication and Navigation systems:

Satellite Communication– Introduction, need, Geosynchronous satellite orbits, geostationary satellite advantages of geostationary satellites. Satellite visibility,

transponders (C - Band), path loss, ground station, simplified block diagram of earth station. Uplink and downlink.

Unit-5

Mobile Telephony System – Basic concept of mobile communication, frequency bands used in mobile communication, concept of cell sectoring and cell splitting, SIM number, IMEI number, need for data encryption, architecture (block diagram) of mobile communication network, idea of GSM, CDMA, TDMA and FDMA technologies, simplified block diagram of mobile phone handset, 2G, 3G and 4G concepts (qualitative only). GPS navigation system (qualitative idea only)

Reference Books:

1. Electronic Communications, D. Roddy and J. Coolen, Pearson Education India.
 2. Advanced Electronics Communication Systems- Tomasi, 6th edition, Prentice Hall.
 3. Modern Digital and Analog Communication Systems, B.P. Lathi, 4th Edition, 2011, Oxford University Press.
 4. Electronic Communication systems, G. Kennedy, 3rd Edn., 1999, Tata McGraw Hill.
 5. Principles of Electronic communication systems – Frenzel, 3rd edition, McGraw Hill
 6. Communication Systems, S. Haykin, 2006, Wiley India
 7. Electronic Communication system, Blake, Cengage, 5th edition.
 8. Wireless communications, Andrea Goldsmith, 2015, Cambridge University Press
-

Paper II
ELB 202 :MICROPROCESSOR ANDMICROCONTROLLER

Theory:

Max. Marks :50

Unit-1

Microcomputer Organization: Input/Output Devices. Data storage (idea of RAM andROM). Computer memory. Memory organization & addressing. Memory Interfacing. Memory Map.
8085 Microprocessor Architecture: Main features of 8085. Block diagram. Pin-outdiagram of 8085. Data and address buses. Registers. ALU. Stack memory. Program counter.

Unit-2

8085 Programming :Instruction classification, Instructions set (Data transfer includingstacks. Arithmetic, logical, branch, and control instructions). Subroutines, delay loops. Timing & Control circuitry. Timing states. Instruction cycle, Timing diagram of MOV and MVI. Hardware and software interrupts.

Unit-3

8051 microcontroller: Introduction and block diagram of 8051 microcontroller,architecture of 8051, overview of 8051 family, 8051 assembly language programming, Program Counter and ROM memory map, Data types and directives, Flag bits and Program Status Word (PSW) register, Jump, loop and call instructions.

Unit 4

8051 I/O port programming: Introduction of I/O port programming, pin out diagram of8051 microcontroller, I/O port pins description & their functions, I/O port programming in 8051 (using assembly language), I/O programming: Bit manipulation.

8051 Programming: 8051 addressing modes and accessing memory locations usingvarious addressing modes, assembly language instructions using each addressing mode, arithmetic and logic instructions,

Unit 5

8051 programming in C: for time delay & I/O operations and manipulation, for arithmetic and logic operations, for ASCII and BCD conversions.

Introduction to embedded system: Embedded systems and general purpose computersystems. Architecture of embedded system. Classifications, applications and purpose of embedded systems.

Reference Books:

1. Microprocessor Architecture Programming & applications with 8085, 2002, R.S. Goankar, Prentice Hall.
 2. Embedded Systems: Architecture, Programming & Design, Raj Kamal, 2008, Tata McGraw Hill
 3. The 8051 Microcontroller and Embedded Systems Using Assembly and C, M.A. Mazidi, J.G. Mazidi, and R.D. McKinlay, 2nd Ed., 2007, Pearson Education India.
 4. Microprocessor and Microcontrollers, N. Senthil Kumar, 2010, Oxford University Press
 5. 8051 microcontrollers, Satish Shah, 2010, Oxford University Press.
 6. Embedded Systems: Design & applications, S.F. Barrett, 2008, Pearson Education India
 7. Introduction to embedded system, K.V. Shibu, 1st edition, 2009, McGraw Hill
 8. Embedded Microcomputer systems: Real time interfacing, J.W. Valvano 2011, Cengage Learning
-

ELECTRONICS LABORATORY

The scheme of practical examination will be as follows-

Experiment	--	30
Viva	--	10
Sessional	--	10
Total	--	50

ELB 203P: COMMUNICATIONELECTRONICS LAB (Hardware and Circuit Simulation Software) 60 Lectures Max.Marks:25

1. To design an Amplitude Modulator using Transistor
2. To study envelope detector for demodulation of AM signal
3. To study FM - Generator and Detector circuit
4. To study AM Transmitter and Receiver
5. To study FM Transmitter and Receiver
6. To study Time Division Multiplexing (TDM)
7. To study Pulse Amplitude Modulation (PAM)
8. To study Pulse Width Modulation (PWM)
9. To study Pulse Position Modulation (PPM)
10. To study ASK, PSK and FSK modulators

Reference Books:

1. Electronic Communication systems, G. Kennedy, 1999, Tata McGraw Hill.
2. Electronic Communication system, Blake, Cengage, 5th edition.

**ELB 204P: MICROPROCESSOR AND MICROCONTROLLER
LAB(Hardware and Circuit Simulation Software)**

Max.Marks:25

At least 06 experiments each from Section-A and Section-B

Section-A: Programs using 8085 Microprocessor

1. Addition and subtraction of numbers using direct addressing mode
2. Addition and subtraction of numbers using indirect addressing mode
3. Multiplication by repeated addition.
4. Division by repeated subtraction.
5. Handling of 16-bit Numbers.
6. Use of CALL and RETURN Instruction.
7. Block data handling.
8. Other programs (e.g. Parity Check, using interrupts, etc.).

Section-B: Experiments using 8051 microcontroller:

1. To find that the given numbers is prime or not.
2. To find the factorial of a number.
3. Write a program to make the two numbers equal by increasing the smallest number and decreasing the largest number.
4. Use one of the four ports of 8051 for O/P interfaced to eight LED's. Simulate binary counter (8 bit) on LED's .
5. Program to glow the first four LEDs then next four using TIMER application.
6. Program to rotate the contents of the accumulator first right and then left
7. Program to run a countdown from 9-0 in the seven segment LED display.
8. To interface seven segment LED display with 8051 microcontroller and display 'HELP' in the seven segment LED display.
9. To toggle '1234' as '1324' in the seven segment LED display.
10. Interface stepper motor with 8051 and write a program to move the motor through a given angle in clock wise or counter clockwise direction.
11. Application of embedded systems: Temperature measurement & display on LCD

Reference Books:

1. Microprocessor Architecture Programming & applications with 8085, 2002, R.S. Goankar, Prentice Hall.
2. Embedded Systems: Architecture, Programming & Design, Raj Kamal, 2008, Tata McGraw Hill
3. The 8051 Microcontroller and Embedded Systems Using Assembly and C, M.A. Mazidi, J.G. Mazidi, and R.D. McKinlay, 2nd Ed., 2007, Pearson Education India.
4. 8051 microcontrollers, Satish Shah, 2010, Oxford University Press.
5. Embedded Microcomputer systems: Real time interfacing, J.W. Valvano 2011, Cengage Learning

INFORMATION TECHNOLOGY

PAPER - I

DIGITAL CIRCUITS & COMPUTER H/W

(Paper Code - 0874)

UNIT-I (A) Number Systems :

Octal and hexadecimal number, decimal rep., complements, addition, subtraction, multiplication, division, fixed point rep, floating point rep., other binary code-gray code, excess 3 gray, excess-3, 2421, etc. error detection code.

(B) Boolean Algebra :

Laws, demorgan's theorem, Simplification boolean expression & logic diagram, positive & negative logic, K-map and simplification of K-map.

UNIT-II Combinational circuits :

Half adder, full adder, flip-flop : SR, JK, D,T, sequential circuits : encoder, decoder, multiplexer, shift register, binary counters, BCD adder.

UNIT-III Multivibrator circuits :

Monostable, astable, bistable, smitt trigger, clocked RS, master-slave flip-flop, edge triggered flip-flop, latch.

Integrated circuits :

RTL, DTL, TTL, CMOS, MOS.

UNIT-IV (A) Central Processing Unit :

Introduction, register organisation, stack organisation, Instruction formats, Addressing modes.

(B) I/O organisation :

I/O interfaces, Data transfer, types and modes, interrupts, DMA, IOP.

UNIT-V Memory organisation :

Memory hierarchy, main memory, Auxiliary memory, Associative memory, cache memory, virtual memory, memory management techniques.

REFERENCE TEXT BOOK :

- | | | | |
|---|---|---|-------------------|
| 1 | Integrated Electronics | - | Millman & Halkias |
| 2 | Principle of Electronics | - | V.K. Mehta |
| 3 | Digital Electronics | - | R.P. Jain |
| 4 | Computer System Architecture | - | Morris Mano |
| 5 | Digital Electronics & Computer Hardware | - | Morris Mano |

PAPER - II

(Paper Code - 0875)

UNIT-I Introduction to OOP : Advantages of OOP, the Object oriented approach, characteristics of object oriented languages : object, classes, inheritance, reusability, polymorphism and C++.

B.Sc.-II

(54)

Suresh
11/06/18
(Dr. Sangeeta Kumar)

Anuj
11/06/18
(Dr. A.K. Desai)

Gaurav
11/06/18
(L.K. Gavel)

Jhanu
11/06/18
(Dr. J. Durga)

Harsh
11/06/18
Harsh Thakur
Prasad Tandel

UNIT-II Function : function declaration, calling function, function definition, passing arguments to function, passing constant, passing value, feference argument, returning by reference, inline function, function overloading, default arguments in function.

UNIT-III Object and classes, using the classes, class constructor, class destructor, object as function argument, copy constructor, struct and classes, array as class member, static class data, static member functions, friend function, friend class, operator overloading, type of inheritance, bass class derive class, access percifier, protected, member function.

UNIT-IV Pointers : & and * operator pointer variables, pointer to pointer, void pointer, pointer and array, pointer and functions, pointer and string, memory management, new and delete, pointer to object, this pointer, virtual function : virtual function, virtual member function, accessses with pointer, pure virtual function.

UNIT-V File and stream : C++ steams, C++ manipulators, Stream class, string I/O, char I/O; object I/O, I/O with multiple objects, disk I/O.

REFERENCE TEXT BOOKS :

- | | | | |
|---|------------------------------------|---|------------------|
| 1 | Programming in C++ | - | E. Balaguruswami |
| 2 | Mastering in C++ | - | Venu Gopal |
| 3 | Object Oriented Programming in C++ | - | Robert Lafore |
| 4 | Let us C++ | - | Y. Kanetkar |

PRACTICAL WORK

1. The sufficient Practical work should be done for understanding the paper 2.
2. At least five programs on each unit from unit 2 to unit 5 be prepared.
3. All practical works should be prepared in form of print outs and be valued while practical examination.

Suresh
11-06-18
(Dr. Sajay Kumar)

Anuj
11/6/18
(Dr. A.K. Dwivedi)

Gaurav
11/06/18
(L.K. Gavel)

Manoj
11/6/18
(Dr. J. Durga Prasad)

Yash
11-06-18
Hari Manu
Prasad

**B.Sc. II
BIOTECHNOLOGY**

PAPER – I

MOLECULAR BIOLOGY & BIOPHYSICS

M.M. 50

UNIT-I

1. Nucleic Acid: Bases, Nucleosides and Nucleotides, DNA and RNA structure.
2. Plasmids.
3. Transposons: Repetitive elements, LINEs & SINEs, Structure of Gene.

UNIT-II

1. DNA Replication: Enzymes involved and mechanism of DNA Replication in Prokaryotes.
2. Mutation: Molecular level of Mutation, Types of Mutagens, Spontaneous and Induced Mutation.
3. DNA Repair: NER, BER and Mismatch Repair.

UNIT-III

1. Genetic Code: Features, Condon Assignment and Wobble hypothesis.
2. Transcription: Initiation, Elongation and Termination in Prokaryotes.
3. Translation: Initiation, Elongation and Termination Translation machinery in Prokaryotes. Operon-Concept of Operator, Regulator, Promoter gene, Inducer and Co-repressor.

UNIT –IV

1. Biophysics : Introduction, Scope and Application
2. Principle, Structure, Functions of the following:
 - a. Microscopy
 - b. Colorimeter and Spectroscopy
 - c. Electrophoresis
 - d. Centrifugation
 - e. Chromatography.

UNIT –V

1. Radioisotopes techniques: Measurement of radioactivity, Ionization Chambers, Geiger Muller and Scintillation Counter.
2. Autoradiography and DNA Fingerprinting.
3. Biosensor.

List of Books

1. Gerald Karp - Cell and Molecular biology, 4th Edition (2005).
2. Lewis J.Klein Smith and Valerie M.Kish-Principles of cell and molecular biology-Third Edition (2002)
3. P.K. Gupta- Cell and molecular biology, Second Edition (2003), Rastogi publications.
4. Richard M-Twyaman-Advanced Molecular Biology, First South Asian Edition (1998), VivaBooks Pvt. Ltd.
5. K. Wilson and J.Walker (2012) Principle and Techniques of Biotechnology and MolecularBiotechnology.
6. Upadhy and Upadhy : Biophysical Chemistry.
7. David, I. Nelson and Michael M.Cox :Lehninger : Principal of Biochemistry 4th Edition. W.H. Freeman and Company, New York.
8. Buchanan, Gruissemen& Jones (2015) Biochemistry & Molecular Biology of Plant, 2nd edition.

**B.Sc. II
BIOTECHNOLOGY**

PAPER II

RECOMBINANT DNA TECHNOLOGY AND GENOMICS

M.M. 50

UNIT-I

1. Recombinant DNA technology: General concept. Steps in gene cloning and application.
2. Host controlled Restriction Modification System, Ligases and Polymerases, Klenow fragment, Taq, Pfu polymerase and Nuclease (Endo, Exo and restriction endonuclease).
3. Modification Enzyme (Kinase, Phosphates and terminal deoxynucleotidyl transferase). Reverse Transcriptase.

UNIT –II

1. Vectors: Plasmid, Bacteriophages, Cosmid, SV40 and Expression vectors.
2. Gene Library: Genomic and cDNA library.
3. Selection and Screening of Recombinants: Genetic and Hybridization methods.

UNIT –III

1. PCR: Types of PCR, Steps (Denaturation, Annealing and Extension); Applications, Advantages and Limitation of PCR.
2. Molecular Marker-RFLP, RAPD and Micro array.
3. Human Genome Project.

UNIT-IV

1. Basic concept of Gene Transfer Methods: Microinjection, Electroporation, Lipofection and Microprojectile.
2. Gene Therapy: *In vivo* and *Ex vivo*, Germ line and Somatic gene therapy.
3. Basic idea of Stem cell technology: Types of stems cell cultures and their Significance.

UNIT-V

1. Introduction to Bioinformatics: History, Objective and Application.
2. Major Bioinformatics Resource – NCBI , Types of Databases (Primary and Secondary Databases) , BLAST and FASTA
3. Basic concept of Genomics and Proteomics

List of Books

1. B.D. Singh (2004) Biotechnology, Expanding Horizons. First Edition. Kalyani Publishers, Ludhiana.
2. P.K. Gupta (2005) Biotechnology and Genomics, Rastogi Publication, Meerut.
3. Stan bury and Whittaker - Principles of Sterilization techniques, First Indian reprint Edition (1997). Aditya Book (P) Ltd. New Delhi.
4. L.E. Casida (1994) Industrial Microbiology Edition .
5. A.H. Patel (2003) Industrial Microbiology 4th Edition.
6. K.S. Bilgrami and A.K. Pandey(1998) Introduction to Biotechnology Edition 2nd (1998)
7. U Satyanarayan (2005) Biotechnology, First Edition Books and Allied (P) Ltd. Kolkata.
8. Atul kumar and VandanaA.Kumar (2004) Plant Biotechnology and tissue culture, Principle and Perspectives, International Books Distributing Co. Lucknow.
10. S Choudhuri, and DB Carlson (2008) Genomics: Fundamentals and applications, 1st edition.
11. TK Attwood and DJ Parry (2009) Introduction of Bioinformatics.
12. Philip E Bourne Helge Whisking (2003) Structural Bioinformatics.
13. Des Higgins and Willie Taylor (2000) Bioinformatics Sequence, Structure and Databanks.

List of Practical's

MOLECULAR BIOLOGY, BIOPHYSICS, RECOMBINANT DNA TECHNOLOGY AND GENOMICS

1. Isolation of DNA from Plant cell.
2. Estimation of DNA by DPA method.
3. Isolation RNA from yeast cells

Experiment based on-

4. Centrifugation
5. Spectrophotometer/Colorimeter
6. Electrophoresis
7. Paper chromatography/TLC

Experiment based on Bioinformatics -

8. Retrieve DNA /Protein sequence from Biological Data Bases (NCBI).
9. Use of tools studied

SCHEME FOR PRACTICAL EXAMINATION

Time: 4 hrs. M.M.: 50

- | | |
|---------------------------------------|----------|
| 1. Experiment based on DNA/RNA | 10 marks |
| 2. Experiment based on Instruments | 10 marks |
| 3. Experiment based on Bioinformatics | 10 marks |
| 4. Spotting | 10 marks |
| 5. <i>Viva - Voce</i> | 05 marks |
| 6. Record / Sessional | 05 marks |



UNIT- I

Social Forestry

Scope, object and type, important social forestry schemes, economic benefits of social forestry

UNIT- II

Joint Forest Management

Definition, scope and objects, People's participation in JFM, constraints in obtaining people's participation

UNIT- III

Forest Management

Definition, scope and objects,

Brief idea of the following-

- a. Growing stock
- b. Rotation
- c. Sustained yield
- d. Normal forest

UNIT- IV

Forest Measurement

Definition, scope and object, measurement of height of trees, measurement of diameter of trees, measurement of girth of tree

UNIT- V

Forest Organisation

Geographical, climatic and functional classification,

Legal classification,

Territorial classification,

Administrative (organizational) classification,

Management (Silvicultural) classification- working circle, felling series, cutting section, coupes and periodic bricks



UNIT- I

Wood Anatomy

Introduction, anatomical structure of wood, physical properties of wood, mechanical properties of wood.

UNIT- II

Logging

Felling and conversion, transport, storage, grading of timber

UNIT- III

Minor Forest Products

Definition of minor forest product

General idea of following MFPs of India –

- a. Fuel wood
- b. Fibre and flosses
- c. Grass, Bamboo
- d. Essential oils
- e. Oilseed
- f. Tans and dyes
- g. Medicinal plants

UNIT- IV

Forest Based or Wood Based Industries

Pulp and paper, Cutch and Katha, Lac and manufacture of shellac, Resin tapping and manufacture of turpentine and rosin, Charcoal burning

UNIT- V

Forest and Tribals

Life and livelihood: Tribal's, tribal's and forests, constitutional safeguards, tribal welfare and development

REFERENCE BOOKS

1. Forestry for people- S.A. Shah
2. Social forestry- S.S. Negi
3. Forest management- Ram Prakash
4. A hand book of forest utilization- Mehta
5. Theory & practices of Silvicultural systems- Ram Prakash and Khanna
6. Forest mensuration- Chaturvedi and Khanna
7. Forestry in India- V.P. Agrawal
8. Bharat ki janjatiyan- Dr. Shiv Kumar Tiwari
9. Tribal in India- Nadeem Hasnain



List of Practicals

1. Measurement of Diameter, girth, height etc.
2. Nursery management
3. Handling of nursery stock
4. Field planting methods



**TASAR TECHNOLOGY
PAPER- I
SEED TECHNOLOGY AND REELING**

MM: 50

UNIT- I

1. Spinning behaviour of non-mulberry cocoons, Physical and commercial characters of cocoons.
2. Pierced cocoons: storage and disposal
3. Marketing of cocoons: price fixation according to silk content
4. Selection & transportation of cocoon for reeling

UNIT- II

1. Economics of seed organisation: Equipment for preparation of economically viable unit of grainage, cocoon DFSL-ratio, manpower requirement.
2. Organising a grainage, cost of preparation of DFSL.
3. Maintenance of records and registers in grainage.
4. Economics of seed production: salaries, wages, establishment, charges, cold storing of eggs, sale of eggs, cost of chemical equipments, egg sheets, furniture, contingencies & miscellaneous expenditure.

UNIT- III

1. Protective measures in seed production
2. SILK REELING: Introduction, evolution, importance & statistics of silk reeling
3. Position of reeling industry in India and other silk producing countries.
4. Raw materials for silk reeling-factor affecting the production of silk yarn, different varieties their characteristics.

UNIT- IV

1. Reeling: object, details study of yarn passage, raw silk yarn size (denier) and importance.
2. Physical, Chemical & Microscopic properties of tasar silk. Uses of tasar silk, different type of silk yarn & their characteristics and uses.
3. Difference between mulberry and non-mulberry silk, Main problem of reeling of tasar silk.
4. Silk testing & quality control: Testing of raw silk, advantage of testing, silk conditioning and testing house, wining test, Seri-plane and serigraph tests, cohesion and standardisation of raw silk.

UNIT- V

1. Reeling machine: Conventional charkha, improved charkha, cottage basin/filature basin, multi end silk reeling basin.
2. Automatic & semi-automatic reeling machine, recent advances in reeling.
3. Re-reeling & packing: object, importance of re-reeling yarn distribution and skein formation, skein finishing, Raw silk book making and building.
4. Stifling: Definition, various methods of stifling.



**TASAR TECHNOLOGY
PAPER-II
SPINNING, DYEING & PRINTING OF TASAR SILK**

MM: 50

UNIT-I

1. Spinning: Principles of spanning. Charkha spinning. Hand spinning, spun silk mills, spun silk Industry.
2. Silk throwing: Introduction. Objective of silk throwing preparation for twisting (Highlight) twist-high twist & low twist.)
3. Winding: object of winding, principle of winding, types and methods of winding.
4. Silk processing: Degumming of silk. Bleaching. Dyeing finishing.

UNIT-II

1. Types of water used in processing.
2. Process Involved in spun silk preparation: washing drying opening. Filling. Combing. Drawing, rowing. Spinning, doubling. Gassing, cleaning, recalling.
3. Introduction of textile fibre general properties classification of textile fibre Physical and chemical properties of different fibres (Tasar, well, action deflector.)

UNIT-III

1. Establishment of small reeling units, efficiency, machinery management, production & economics.
2. By products of silk, pupa different types of silk waste.
3. Traditional ghicha preparation of tasar silk blending of tasar silk with other fibre and its problems.
4. Noil and noil yarns

UNIT-IV

1. Bleaching: Introduction of bleaching, purpose of bleaching, bleaching of tasar silk, wool & cotton.
2. Dyeing: Introduction of dyeing of tasar silk, cotton and wool with different class of dyestuffs normally used after their treatment.
3. Printing: Introduction of printing, study of different methods and styles of printing.

UNIT-V

1. Printing of tasar silk & cotton by block method, with different group of colour normally used.
2. Brief Idea of transfer and foam Printing, thickening agents.
3. Finishing: Introduction of finishing, classification of finishing, study of different type of temporary and permanent finishing of tasar silk and cotton.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SYLLABUS B.SC. PART-II

PRACTICALS

PAPER-I: SEED TECHNOLOGY AND REELING.

PAPER-II: SPINNING, DYEING & PRINTING OF TASAR SILK.

MM: 50

1. Sorting and grading of tasar cocoons.
2. Determination of physical/commercial characters of cocoons.
3. Stifling and cooking of tasar cocoon.
4. Reeling of tasar cocoons on natwa.
5. Study of reeling and spinning machines.
6. Identification of textile fibres, silk, wool & cotton.
7. Flaw of grainage buildings & equipment.
8. Cutting of seed cocoons: sex separation. By rupal methods.
9. Study of multi-end silk reeling machine, automatic & semi-automatic reeling machine.
10. Study of silk testing: winding test, denier (size) test.
11. Degumming of raw silk yarn and silk waste by soap & soda method.
12. Study of silk fabric manufacturing unit: power loom & hand loom.
13. Study of silk dyeing and printing unit: visit to practical centers.
14. Charkha reeling.: economic model of silk reeling unit
15. Visit to seed cocoon markets.
16. Visit to multi-voltine & bi-voltine seed forms.
17. Visit to temperate & tropical states of India.
18. Provision to arrange guest/ lectures/film/slide shows.

LIST OF REFERENCE BOOKS:-

1. Silkworm Egg: by Y. Tazima (1962) Published by CSB Bombay.
2. Silk Dyeing, Printing and Finishing: Gulrabani.
3. Sericulture & Silk Industry: by Tripurali Sharma.
4. Silk Processing: by Kim.
5. Technology of Printing: by Shenai.
6. Finishing: by Marsh.
7. Dye & Dye Intermediates: by S.B.P.
8. Raw Silk Reeling: by B.H. Kim.
9. Silk of Industry Problem and Prospects: by A. Ajab, H. Lawpper.
10. Dying of Textile Fibres: by Shenai.
11. The Development of Indian Silk: by Sanjay Sinha (1990)

केन्द्रीय अध्ययन मंडल द्वारा अनुशंसित पाठ्यक्रम

बी.एससी.

विषय : भूविज्ञान

सत्र : 2018 – 2019

बैठक दिनांक : 11 जून 2018

उपस्थित सदस्यों के नाम एवं हस्ताक्षर :

1. डॉ. निनाद बोधनकर अध्यक्ष :
2. डॉ. एम.डब्ल्यू.वाय.खान :
3. प्रो. एस.के. चन्द्राकर :
4. प्रो. प्रदीप सिंह गौर :
5. डॉ. एस.एस.भदौरिया :
6. डॉ. एस.डी.देशमुख :
7. डॉ. प्रशांत श्रीवास्तव :
8. प्रो. महफूज आरिफ :

Scheme of Examination

कक्षा	प्रश्नपत्र	विषय समूह	सैद्धा.अंक	प्रायो.अंक	योग
-------	------------	-----------	------------	------------	-----

BSc. I year	I	भूगतिकी एवं भू-आकृति विज्ञान (Geodynamics & Geomorphology)	50	50	150
	II	खनिज एवं क्रिस्टल विज्ञान (Mineralogy & Crystallography)	50		
BSc. II year	I	शैलिकी (Petrology)	50	50	150
	II	संरचनात्मक भूविज्ञान (Structural Geology)	50		
BSc. III year	I	जीवाश्म विज्ञान एवं संस्तर विज्ञान (Palaeontology & Stratigraphy)	50	50	150
	II	भूसंसाधन एवं व्यावहारिक भूविज्ञान (Earth Resources & Applied Geology)	50		

-: Note :-

प्रत्येक वर्ष के विद्यार्थियों हेतु पाठ्यक्रम में उल्लेखित भूवैज्ञानिक क्षेत्रीय अध्ययन अनिवार्य होगा।

कक्षा / Class- B.Sc-I
Paper –I
भूगतिकी एवं भूआकृति विज्ञान
(Geodynamics & Geomorphology)

- इकाई— 01 (i) भूविज्ञान एवं परिप्रेक्ष्य; सौरमण्डल में सूर्य की स्थिति ; परिमाण, आकार, संहति, घनत्व ।
(ii) पृथ्वी की उत्पत्ति
(iii) पृथ्वी की आंतरिक संरचना, भूपर्पटी, प्रवार एवं क्रोड
(iv) पृथ्वी की आयु: निर्धारण की विघटनाभिक विधियाँ
(v) वायुमण्डल, जलमण्डल एवं जैवमण्डल का निर्माण एवं संगठन
- इकाई— 02 (i) प्लेटविवर्तनिकी का प्रारंभिक— अध्ययन
(ii) महाद्वीपीय विस्थापन की अवधारणायें एवं सिद्धान्त
(iii) समस्थैतिकी की अवधारणायें एवं सिद्धान्त
(iv) समुद्रतल विस्तारण की साक्ष्य
(v) समुद्र, महाद्वीप एवं पर्वतों की उत्पत्ति
- इकाई— 03 (i) भूकम्प: भूकम्प की पट्टियाँ, भूकम्प की तीव्रता
(ii) ज्वालामुखी: प्रकार एवं विवरण
(iii) अंतःसमुद्रीपर्वतों, चापाकार द्वीपमालाओं एवं खाइयों का उद्भव, विवरण एवं महत्व
(iv) महाद्वीपीय तटीय क्षेत्रों की विवर्तनिकी : सक्रिय तट एवं सीमांतीय द्रोणियाँ
(v) नवविवर्तनिकी : सक्रियभ्रंश, अपवाह परिवर्तन
- इकाई— 04 (i) भूआकृति विज्ञान की मूलभूत धारणायें
(ii) भूआकृतिक कारक एवं शैल अपक्षय की प्रक्रियायें,
(iii) नदी के भूवैज्ञानिक कार्य एवं नदीय भूआकृतियाँ
(iv) वायु के भूवैज्ञानिक कार्य एवं वायुजनित भूआकृतियाँ
(v) हिमनदों के भूवैज्ञानिक कार्य एवं हिमनदजनित भूआकृतियाँ

- इकाई— 05 (i) समुद्र के भूवैज्ञानिक कार्य एवं तटीय भूआकृतियों
(ii) भूमिगत जल के भूवैज्ञानिक कार्य एवं कार्स्टस्थलाकृति
(iii) ज्वालामुखीय भूआकृतियों
(iv) पृथ्वी का उष्माबजट एवं वैश्विक जलवायु परिवर्तन
(V) भारत का भूआकृति विभाजन

प्रायोगिक कार्य—

- (1) भूआकृतिक संरचनाओं को प्रदर्शित करने वाले प्रादर्शों का अध्ययन
- (2) स्थलाकृतिक मानचित्रों का अध्ययन एवं विभिन्न पैमानों पर सूचक—निर्धारण की जानकारियाँ
- (3) भूआकृतिक—मानचित्रों में विभिन्न भूआकृतियों एवं प्रवाह प्रणालियों का अध्ययन
- (4) भारत के रेखित—मानचित्र में मुख्य पर्वतों, झीलों एवं नदियों को अंकित करना
- (5) भारत के रेखित मानचित्र में भूकम्प प्रेक्षणालयों को अंकित करना
- (6) भारतीय महाद्वीपों में आये भूकम्पों का अधिकेन्द्र एवं तीव्रता को मानचित्र में अंकित करना।
- (7) आकारमितिक विश्लेषण

Class- B.Sc-I
Paper –I
(Geodynamics & Geomorphology)

- Unit:1**
- (i) Geology & its perspectives. Earth in the solar system; size, shape, mass, & density.
 - (ii) Origin of Earth.
 - (iii) Internal structure of Earth, Crust, Mantle and Core.
 - (iv) Age of Earth: with special emphasis on Radioactive dating.
 - (v) Formation & composition of Hydrosphere, & Biosphere & Atmosphere.
- Unit:2**
- (i) Elementary idea about Plate-Tectonics.
 - (ii) Concept & theories of continental-drift
 - (iii) Concept & theories of Isostasy.
 - (iv) Evidences of Sea-floor spreading.
 - (v) Origin of oceans, continents & mountains.
- Unit:3**
- (i) Earthquakes, Earthquake Belts, measurement of Earthquakes.
 - (ii) Volcanoes: Types & distribution.
 - (iii) Mid –oceanic- ridges, trenches & island arc; origin, distribution & importance.
 - (iv) Tectonic of continental margins; Active margins & marginal basins.
 - (v) Neo-tectonics; active faults, drainage changes.
- Unit:4**
- (i) Fundamental concepts of Geomorphology.
 - (ii) Geomorphic agents & processes of rock-weathering.
 - (iii) Geological work of rivers; fluvial land forms.
 - (iv) Geological work of wind; Aeolian land forms.
 - (v) Geological work of Glaciers; glacial land forms.
- Unit:5**
- (i) Geological work of oceans; coastal land forms.
 - (ii) Geological work of Ground water. Karst topography.

- (iii) Volcanic land forms.
- (iv) Earth's heat budget & global climatic changes.
- (v) Physiographic divisions of India.

PRACTICALS:

- (1) Study of models showing various Geomorphic features.
- (2) Numbering, Indexing of topographic maps on various scales.
- (3) Interpretation of various Geomorphic landforms & drainage pattern on topographic maps.
- (4) Plotting of major mountain Ranges, Lakes & rivers on outline map of India.
- (5) Plotting of seismic observatories on outline map of India.
- (6) Plotting of epicenters & magnitude of major earthquakes of Indian subcontinents.
- (7) Morphometric analysis.

Suggested Readings:-

भौतिक-भूविज्ञान	—	डॉ.मुकुल घोष—
भौतिक-भूविज्ञान	—	जे.पी. तिवारी एव बी.के. सिंह—
भूआकृति-विज्ञान	—	डॉ.सविन्द्र सिंह
भूविज्ञान एक परिचय	—	डॉ.विद्यासागर दुबे
Physical Geology	-	Miller
Principles of physical geology	-	A. Holmes
An introduction to physical geology-		A.K. Dutta
Principles of Geomorphology	-	W.D. Thornbury
Principles of Geomorphology	-	A.F. Ahmed

कक्षा / Class- B.Sc-I
Paper –II
खनिज एवं क्रिस्टल विज्ञान
(Mineralogy & Crystallography)

- इकाई— 01 (i) खनिज एवं क्रिस्टल की परिभाषा ।
(ii) क्रिस्टल संरचना एवं एकांक कोष ।
(iii) क्रिस्टल के तत्व, क्रिस्टल रूप ।
(iv) क्रिस्टलीय अक्ष एवं अक्षीय कोण ।
(v) क्रिस्टल नोटेशन, अन्तःखण्डीय अनुपात एवं सूचकांक
- इकाई— 02 (i) क्रिस्टल विज्ञान के नियम ।
(ii) क्रिस्टलीय सममिति ।
(iii) क्रिस्टलों का वर्गीकरण । क्रिस्टल समुदायों के सामान्यवर्ग की सममिति ।
(iv) सामान्य वर्ग के रूप ।
(v) क्रिस्टलों में यमलन ।
- इकाई— 03 (i) प्रकाश की प्रकृति, प्रकाश का परावर्तन एवं अपवर्तन ।
(ii) अपवर्तनांक, क्रांतिक कोण, पूर्ण आंतरिक परावर्तन एवं बेके प्रभाव ।
(iii) द्वि-अपवर्तन, निकॉल प्रिज्म की रचना एवं कार्य प्रणाली ।
(iv) ध्रुवण सूक्ष्मदर्शी : अवयव एवं कार्यप्रणाली ।
(v) खनिजों के प्रकाशीय गुण ।
- इकाई— 04 (i) सिलिकेट संरचनाएं
(ii) खनिजों में बंध ।
(iii) समाकृतिकता, बहुरूपता एवं कूटरूपता ।
(iv) ठोस-विलयन
(v) खनिजों के भौतिक गुण ।

इकाई— 05 निम्नलिखित खनिज समूहों के संगठन, भौतिक एवं प्रकाशकीय गुणों का अध्ययन—

- (i) ऑलिवीन्, गार्नेट एवं अभ्रक समूह ।
- (ii) पायरोक्सीन ।
- (iii) एम्फीबोल ।
- (iv) फेल्सपार ।
- (v) सिलिका ।

प्रायोगिक कार्य—

- (1) क्रिस्टल मॉडल में सममिति तत्त्वों का अध्ययन ।
- (2) क्रिस्टल समुदायों की मूल आकृतियों का अध्ययन ।
- (3) यूलर प्रमेय का सत्यापन ।
- (4) प्रमुख शैलकर खनिजों का स्थूलदर्शी अध्ययन ।
- (5) ध्रुवण—सूक्ष्मदर्शी की सहायता से प्रमुख शैलकर खनिजों के प्रकाशीय गुणों का अध्ययन ।
- (6) सात दिवसीय भूवैज्ञानिक क्षेत्रीय अध्ययन

Class- B.Sc-I
Paper –II
(Mineralogy & Crystallography)

- Unit:1**
- (i) Definition of Mineral and Crystal.
 - (ii) Crystal structures, Unit cells
 - (iii) Elements of crystal. Crystal forms.
 - (iv) Crystallographic axes and axial angles.
 - (v) Parameters and indices of crystal notation
- Unit:2**
- (i) Laws of Crystallography
 - (ii) Crystal symmetry
 - (iii) Classification and symmetry of normal classes of seven crystal systems
 - (iv) Forms of normal classes.
 - (v) Twinning in crystals
- Unit:3**
- (i) Nature of light : reflection and refraction of light.
 - (ii) Refractive index. Critical angles. Total internal reflection and Becke effect.
 - (iii) Double refraction. Nicol prism it's construction and working.
 - (iv) Polarizing Microscope- its parts & functions.
 - (v) Optical properties of minerals.
- Unit:4**
- (i) Silicate structures.
 - (ii) Bonding in Minerals.
 - (iii) Isomorphism. Polymorphism and Pseudomorphism.
 - (iv) Solid solution
 - (v) Physical properties of minerals
- Unit:5**
- Study of Composition, physical and optical properties of the following Mineral groups:
- (i) Olivine, Garnet and Mica groups.

- (ii) Pyroxenes
- (iii) Amphiboles
- (iv) Feldspars
- (v) Silica

PRACTICALS-

- (1) Study of symmetry elements in crystal models.
- (2) Study of Fundamental forms of normal classes of all seven crystal system.
- (3) Verification of Euler's theorem.
- (4) Study of Physical properties of rock forming minerals.
- (5) Study of the optical properties of important rock forming minerals using polarizing Microscopes.
- (6) Geological excursion for seven days.

Suggested Readings:

Rutley's elements of Mineralogy	:	Read, H.D.
Dana's text book of Mineralogy	:	Ford W.E.
खनिज तथा क्रिस्टल विज्ञान	—	डॉ.बी.सी. जैश
खनिज विज्ञान के सिद्धांत	—	डॉ. ए.सी. अग्रवाल
प्रायोगिक भू-विज्ञान (भाग-1)	—	डॉ. र. प्र. मांजरेकर
प्रकाशीय खनिज विज्ञान के मूल तत्व	—	विंचेल

- इकाई—01
- (i) मैग्मा; परिभाषा, उत्पत्ति एवं संगठन
 - (ii) बोवेन की अभिक्रिया श्रेणी, मैग्मीय विभेदन एवं स्वांगीकरण
 - (iii) तंत्र, प्रावस्था एवं घटक, उष्मागतिकी के सिद्धांत, एकघटकीय (सिलिका) द्विघटकीय ऐल्बर्ट—एनार्थाइट तथा डायोप्साइड—एनार्थाइट एवं त्रिघटकीय सिलिकेट सिस्टम डायोप्साइड—एल्बर्ट—एनार्थाइट क्रिस्टलीकरण, प्रावस्था संतुलन
 - (iv) आग्नेय शैलों का गठन, संरचनायें एवं वर्गीकरण
 - (v) आग्नेय शैलों का रूप
- इकाई—02
- (i) दिक्काल में शैल—संलग्नता, शैल—ग्रंथियों की अवधारणा
 - (ii) अम्लीय आग्नेय शैलों का शिला विवरणात्मक अध्ययन
 - (iii) क्षारीय आग्नेय शैलों का शिला—विवरणात्मक अध्ययन
 - (iv) अल्पसिलिक आग्नेय शैलों का शिलाविवरणात्मक अध्ययन
 - (v) अत्यल्पसिलिक आग्नेय शैलों का शिलाविवरणात्मक अध्ययन
- इकाई—03
- (i) अवसाद की उत्पत्ति, परिवहन एवं निक्षेपण
 - (ii) अवसाद निक्षेपण की वायूढ़, जलोढ़, तटीय, एवं गंभीर समुद्री वातावरण की गतिकी
 - (iii) अवसादी संलक्षणाओं की अवधारणा
 - (iv) डायजिनेसिस की अवधारणा
 - (v) अवसादी शैलों का गठन एवं संरचनायें
- इकाई—04
- (i) अवसादी शैलों का वर्गीकरण
 - (ii) अवसादी शैलों की शैलिकी : रूडेशियस, एरेनिशियस, केल्केरियस अवसादी शैल
 - (iii) कायान्तरण: परिभाषा एवं कारक, संलक्षणा, कायान्तरण श्रेणी

- (iv) कायान्तरित शैलों का गठन, संरचना एवं वर्गीकरण
- (v) कायान्तरण प्रक्रियाओं की साम्य एवं असाम्य अभिक्रियायें

- इकाई—05
- (i) पैराजिनेटिक—ओरख: प्रक्षपीय विश्लेषण, ए.सी.एफ. एवं ए.के.एफ. आरेख
 - (ii) मृण्मय अवसादों का प्रगामी कायान्तरण
 - (iii) अशुद्ध चूना पत्थरों का प्रगामी—उष्मागतिक कायान्तरण
 - (iv) अल्प सिलिक शैलों का प्रगामी उष्मागतिक कायान्तरण
 - (v) भारत का शैलिकीय—प्रादेशिक विभाजन

प्रायोगिक कार्य—

- (1) आग्नेय, अवसादी एवं कायान्तरित शैलों के विभिन्न रूपों को रेखाचित्र की सहायता से प्रदर्शित करना।
- (2) विभिन्न आग्नेय शैलों का स्थूलदर्शी अध्ययन/सूक्ष्मदर्शी अध्ययन
- (3) विभिन्न अवसादी शैलों का स्थूलदर्शी/सूक्ष्मदर्शी अध्ययन
- (4) विभिन्न कायान्तरित शैलों का स्थूलदर्शी/सूक्ष्मदर्शी अध्ययन
- (5) भारत के शैलिकीय प्रदेशों का मानचित्र में प्रदर्शन

Suggested Readings:-

- | | | |
|--|---|---------------------------------------|
| (1) शैलिकी के सिद्धान्त | — | डॉ.अंबिका प्रसाद अग्रवाल |
| (2) शैलिकी के सिद्धान्त | — | ए.जी. झिंगरन |
| (3) Principles of petrology | - | G.W. Gyrrel |
| (4) Petrology | - | H.William, F.J. Turner & E.M. Gilbert |
| (5) Petrology of igneous & metamorphic rocks of India- | | S.C. Chattarjee |
| (6) A text book of sedimentary petrology | - | Verma & Prasad |
| (7) Metamorphism & Metamorphic rocks of India- | | S.Ray |
| (8) Sedimentary rocks | - | F.J. Pettijhan |
| (9) Introduction of sedimentology | - | S.Sengupta |
| (10) Sedimentary environment | - | H.G. Readings |

Class- B.Sc-II
Paper –I
(PETROLOGY)

- Unit:1**
- (i) Magma, definition, origin & composition
 - (ii) Bowen's reaction series, magmatic differentiation & assimilation
 - (iii) System, phases & component, principles of thermodynamics,
Bi-component magma: Albite-Anorthite and Diopside-Anorthite
Tri-component magma: Diopside-Albite-Anorthite
 - (iv) Texture, structures & classification of igneous rocks
 - (v) Forms of igneous rocks
- Unit:2**
- (i) Rock association in Time & Space, concepts of rock kindreds
 - (ii) Petrographic studies of Acid igneous rocks.
 - (iii) Petrographic studies of Alkaline igneous rocks
 - (iv) Petrographic studies of Basic igneous rock
 - (v) Petrographic studies of Ultrabasic igneous rocks.
- Unit:3**
- (i) Origin, transportation & deposition of sediments
 - (ii) Dynamics of sedimentary depositional environment ; Aeolian, fluvial, coastal and abyssal environment.
 - (iii) Concepts of sedimentary facies
 - (iv) Concepts of diagenesis
 - (v) Textures & structures of sedimentary rocks.
- Unit:4**
- (i) Classification of sedimentary rocks.
 - (ii) Petrography of sedimentary rock; rudaceous, argillaceous, calcareous sedimentary rocks
 - (iii) Metamorphism; definition, agents, facies & grade
 - (iv) Textures, structures & classification of metamorphic rocks.
 - (v) Equilibrium & non-equilibrium reactions in metamorphism.

- Unit:5**
- (i) Paragenetic diagrams; projective analysis A.C.F & A.K.F. diagrams
 - (ii) Progressive metamorphism of Argillaceous rocks.
 - (iii) Progressive dynamo-thermal metamorphism of impure lime-stone.
 - (iv) Progressive dynamo-thermal metamorphism of basic igneous rocks.
 - (v) Petrographic provinces of India.

Practical:

- (1) Diagrammatic representation of various form & structures of igneous, sedimentary & Metamorphic rocks
- (2) Megascopic studies of various sedimentary, metamorphic & igneous rocks.
- (3) Microscopic studies of various sedimentary, metamorphic & igneous rocks.
- (4) Norm calculation
- (5) Diagrammatic representation of petrography provinces of India in outline map of India.

Suggested Readings:-

- (1) शैलिकी के सिद्धान्त – डॉ.अंबिका प्रसाद अग्रवाल
- (2) शैलिकी के सिद्धान्त – ए.जी. झिंगरन
- (3) Principles of petrology - G.W. Tyrell
- (4) Petrology - H.William, F.J. Turner & E.M. Gilbert
- (5) Petrology of igneous & metamorphic rocks of India- S.C. Chattarjee
- (6) A text book of sedimentary petrology - Verma & Prasad
- (7) Metamorphism & Metamorphic rocks of India- S.Ray
- (8) Sedimentary rocks - F.J. Pettijohn
- (9) Introduction of sedimentology - S.Sengupta
- (10) Sedimentary environment - H.G. Readings

कक्षा / Class- B.Sc-II
Paper –II
संरचनात्मक भू-विज्ञान
(STRUCTURAL GEOLOGY)

- इकाई—01
- (1) संरचनात्मक भूविज्ञान की परिभाषा एवं अध्ययन क्षेत्र ।
 - (2) शैल दृष्यांशों का अध्ययन । दृष्यांशों पर नति तथा ढाल के प्रभाव ।
 - (3) संस्तरण की पहचान । नति एवं नतिलम्ब की माप ।
 - (4) क्लाइनोमीटर एवं ब्रन्टन कम्पास ।
 - (5) संस्तरों के शीर्ष तथा तल की पहचान ।
 - (6) शैलविरूपण की अवधारणा । प्रतिबल तथा विकृति दीर्घवृत्तज की अवधारणा ।
- इकाई—02
- (1) वलन की आकारिकी ।
 - (2) वलन की ज्यामितिक एवं जननिक वर्गीकरण ।
 - (3) स्थलीय तथा भूवैज्ञानिक मानचित्र में वलन की पहचान ।
 - (4) दृश्यांशों पर वलन के प्रभाव ।
 - (5) वलन क्रियाविधि की प्राथमिक अवधारणा ।
- इकाई—03
- (1) भ्रंश आकारिकी । सर्पण और सेपरेशन ।
 - (2) भ्रंश का ज्यामितिक एवं जननिक वर्गीकरण ।
 - (3) स्थलक्षेत्र तथा भूवैज्ञानिक मानचित्र में भ्रंश की पहचान ।
 - (4) दृश्यांशों पर भ्रंश के प्रभाव ।
 - (5) भ्रंशन क्रियाविधि की प्राथमिक अवधारणा ।
- इकाई—04
- (1) संधि; आकारिकी, संधि का ज्यामितिक एवं जननिक वर्गीकरण ।
 - (2) पत्रण की परिभाषिक शब्दावली, प्रकार, उत्पत्ति एवं विशाल संरचनाओं से संबंध ।
 - (3) रेखण की परिभाषिक शब्दावली, प्रकार, उत्पत्ति एवं विशाल संरचनाओं से संबंध ।
 - (4) लवण गुम्बद,

(5) प्लूटान; विवर्तनिकी एवं अभिस्थापन

इकाई—05

- (1) विषमविन्यास के प्रकार एवं पहचान।
- (2) आउटलायर तथा इनलायर, अतिव्यापन तथा अपव्यापन।
- (3) विवर्तनिकी की अवधारणा।
- (4) प्रायद्वीपीय, सिंधु गंगा के मैदान तथा प्रायद्वीपेत्तर भारत का विवर्तनिकी विन्यास।
- (5) त्रिविमीय प्रक्षेपण का भूविज्ञान में अनुप्रयोग।

प्रायोगिक कार्य—

- (1) प्राकृतिक संरचनात्मक प्रादर्शों का अध्ययन।
- (2) विभिन्न संरचनाओं का प्रादर्शों के माध्यम से अध्ययन।
- (3) मानचित्र में दृश्यांश को पूरा करना।
- (4) सरल से जटिल संरचनाओं को प्रदर्शित करने वाले मानचित्रों से भूवैज्ञानिक काट बनाना एवं भूवैज्ञानिक इतिहास की विवेचना करना।
- (5) संरचनाओं के अध्ययन में स्टिरियोग्राफिक प्रोजेक्शन का अनुप्रयोग।
- (6) सात दिवसीय भूवैज्ञानिक क्षेत्रीय अध्ययन

Class- B.Sc-II
Paper –II
(STRUCTURAL GEOLOGY)

- Unit:1**
- (i) Definition and scope of Structural Geology. Study of outcrops. Effects of dip and slope on outcrops.
 - (ii) Identification of bedding. Dip and strike measurement.
 - (iii) Clinometer and Brunton compass.
 - (iv) Recognition of top and bottom of beds.
 - (v) Concept of rock deformation. Concept of stress and strain ellipsoids.
- Unit:2**
- (i) Fold morphology.
 - (ii) Geometric and genetic classification of folds.
 - (iii) Recognition of folds in the field and on geological maps.
 - (iv) Effect of folds on outcrops.
 - (v) Elementary idea of mechanics of folding.
- Unit:3**
- (i) Fault morphology. Slip and separation.
 - (ii) Geometric and genetic classification of faults.
 - (iii) Recognition of faults in the field and on geological maps.
 - (iv) Effect of faults on outcrops.
 - (vi) Elementary idea of mechanics of faulting.
- Unit:4**
- (i) Joint morphology; geometric and genetic classification of joints.
 - (ii) Foliation; terminology, kinds, origin and relation to major structures.
 - (iii) Lineation: terminology, Kind, origin and relation to major structures.
 - (iv) Salt domes.
 - (vii) Plutons; tectonics & emplacement.
- Unit:5**
- (i) Types and recognition of Unconformity.
 - (ii) Outlier and inlier. Overlap & offlap.

- (iii) Concept of tectonics.
- (iv) Tectonic framework of Peninsula, Indo-Gangetic Plains and Extra-Peninsular India.
- (v) Stereographic projection & its use in Structural geology.

Practical-

- (1) Study of Natural Structures on specimens.
- (2) Study of structures with the help of models.
- (3) Completion of outcrops.
- (4) Preparation of geological section from simple to complex geological maps and its interpretation.
- (5) Application of stereographic projection in structural geology.
- (6) Geological excursion for seven days.

Books recommended:

- (1) संरचनात्क भूविज्ञान – डॉ.डी.के. श्रीवास्तव
- (2) भूवैज्ञानिक संरचनाएँ – डॉ. भरत सिंह राठौर
- (3) प्रायोगिक भूविज्ञान (भाग-2) – आर.पी. मांजरेकर
- (4) Structural Geology. M.P. Billings.
- (5) Theory of Structural Geology; Gokhale, N.W. CBS
- (6) Exercises on Geological maps and dip-Strike: Gokhale, N.W. CBS.
- (7) Outlines of structural Geology. E.S. Hills.
- (8) Structural Geology- Hobbs. Means and Williams.
- (9) Geological maps- Chiplonkar and Pawar.

- इकाई—01
- (1) जीवाश्म विज्ञान: जीवाश्म, परिभाषा, जीवाश्मन की आवश्यक परिस्थितियाँ एवं विधियाँ
 - (2) जीवश्मों के उपयोग, सूचक—जीवाश्म एवं उनका महत्व
 - (3) संस्तर विज्ञान, पुरापारिस्थितिकी एवं पुराभूगोल के अध्ययन में जीवाश्म विज्ञान का महत्व ।
 - (4) सूक्ष्मजीवाश्मविज्ञान एवं उसका महत्व ।
 - (5) पादप जीवाश्मों का अध्ययन एवं उनका महत्व ।
- इकाई—02
- (1) फोरामिनिफेरा एवं एंथोजोआ जीवाश्मों की आकारिकी एवं भूवैज्ञानिक वितरण ।
 - (2) गेस्ट्रोपोडा एवं लेमिलिब्रेन्किया जीवाश्मों की आकारिकी एवं भूवैज्ञानिक वितरण ।
 - (3) सिफेलोपोडा जीवाश्मों की आकारिकी एवं भूवैज्ञानिक वितरण ।
 - (4) इकिनायडी एवं ब्रेकियोपोडा जीवाश्मों की आकारिकी एवं भूवैज्ञानिक वितरण ।
 - (5) ट्राइलोबाइट एवं ग्रेप्टोलाइट जीवाश्मों की आकारिकी एवं भूवैज्ञानिक वितरण ।
- इकाई—03
- (1) संस्तर विज्ञान के सिद्धान्त, भूवैज्ञानिक समय सारणी ।
 - (2) अश्मसंस्तरिक, कालानुक्रम संस्तरिक एवं जैव संस्तरिक इकाईयों के विषय में मूलभूत धारणायें ।
 - (3) भारतीय उपमहाद्वीप का संरचनात्मक एवं भौतिकीय उपविभाजन एवं उसकी विशिष्टतायें ।
 - (4) भारत वर्ष के आद्यमहाकल्पीय (धारवार) शैलों का वितरण, वर्गीकरण, एवं आर्थिक महत्व ।
 - (5) छत्तीसगढ़ के बस्तर, रावघाट, संघों का वितरण, संस्तर विज्ञान एवं आर्थिक महत्व ।

- इकाई—04
- (1) विन्ध्य एवं छत्तीसगढ़ महासंघ के शैलों के वितरण, संस्तर विज्ञान एवं आर्थिक महत्व ।
 - (2) गोंडवाना महासंघ का संस्तर विज्ञान, पुराजलवायु, भौगोलिक वितरण एवं आर्थिक महत्व ।
 - (3) डेक्कन ट्रेप का संस्तर विज्ञान, भौगोलिक वितरण एवं आयु ।
 - (4) बाघ संस्तर एवं लेमेटा संस्तर का संस्तर विज्ञान, भौगोलिक वितरण एवं जीवाश्म ।
 - (5) साल्ट रेंज क्षेत्रों के पुराजीव समूहों का भौगोलिक वितरण संस्तर विज्ञान एवं जीवाश्मिकी ।
- इकाई—05
- (1) स्पिटी क्षेत्रों के पुराजीव समूहों का भौगोलिक वितरण, संस्तर विज्ञान एवं आर्थिक महत्व ।
 - (2) त्रिचनापल्ली क्षेत्र के क्रिटेशियस शैलों का संस्तर विज्ञान, जीवाश्म एवं आर्थिकी ।
 - (3) कच्छ क्षेत्र के जुरासिक शैलों का संस्तर विज्ञान, जीवाश्म एवं आर्थिकी ।
 - (4) असम के तृतीयक महायुग समूह का भौगोलिक वितरण संस्तर विज्ञान एवं आर्थिकी ।
 - (5) शिवालिक समूह का संस्तर विज्ञान, भौगोलिक वितरण एवं कशेरुकीय जीवाश्मीय तत्व ।

प्रायोगिक कार्य:

- (1) सैद्धांतिक पाठ्यक्रम के अन्तर्गत उल्लेखित जीवाश्मों की आकारिकी का अध्ययन ।
- (2) प्रमुख पादप जीवाश्मों का अध्ययन ।
- (3) भारत के रेखा मानचित्र में विभिन्न संस्तर विज्ञानी इकाईयों को दर्शाना ।
- (4) भारत के प्रमुख भूआकृतिक एवं शैल विवर्तनिक इकाईयों को रेखा मानचित्र में प्रदर्शित करना ।

Suggested Readings

- (1) जीवाश्म विज्ञान के सिद्धांत— डॉ.अंबिका प्रसाद अग्रवाल
- (2) जीवाश्म विज्ञान— डॉ. आर.पी. मिश्रा
- (3) अकशेरुकी एवं कशेरुकीय जीवाश्म विज्ञान— डॉ. दीपक राज तिवारी
- (4) भारत वर्ष का भूविज्ञान— डॉ.अंबिका प्रसाद अग्रवाल

- (5) प्रायोगिक भू विज्ञान भाग-3- डॉ. गुप्ता, पुनवटकर, रघुवंशी
- (6) Invertebrate Palaeontology- H.Woods.
- (7) Introduction to Palaentology- A.N. Davis.
- (8) An Introduction to Invertebrate Palaeontology- P.G. Jain & M.S.
Anantha Raman
- (9) Historical Geology of India- Ravidra Kumar
- (10) Geology of India- R.Vidhyanathan & M.Ramkrishne (GSI Publication)
- (11) Geology of India & Burma- M.S. Krishnan.

Class- B.Sc-III
Paper –I
(Palaeontology & Stratigraphy)

- Unit-1**
- (1) Palaeontology: Fossils- definition, Essentials for fossilization mode of fossilization.
 - (2) Uses of fossils; Index fossils & their significance.
 - (3) Application of palaeontology in the study of stratigraphy. Palaeoecology And Palaeo-geography.
 - (4) Micro palaeontology & their significance.
 - (5) Study of plant fossils & their significance.
- Unit-2**
- (1) Morphology & Geologic distribution of foraminifera & Anthozoa fossils.
 - (2) Morphology & Geological distribution of Gastropoda and lamellibranchia fossils.
 - (3) Morphology & Geological distribution or Cephalopoda.
 - (4) Morphology & Geological distribution or Echinoidae & Brachiopoda fossils.
 - (5) Morphology & Geological distribution of Triobite and Graptolite fossils.
- Unit-3**
- (1) Principles of stratigraphy: Geological time scale.
 - (2) Basic concept of lithostratigraphic, chronostratigraphic & Biostratigraphic Units.
 - (3) Structural & Physical Subdivision of Indian subcontinents.
 - (4) Distribution, classification & Economic importance or Archaeozoic rocks of India (Dharwar)
 - (5) Distribution, Stratigraphy & Economic Importance of Bastar & Raoghat group of rocks (Chhattisgarh)
- Unit-4**
- (1) Distribution, stratigraphy & Economic importance of Vindhya & Chhattisgarh group of rocks.
 - (2) Stratigraphy, Palaeoclimate, Geographical distribution & economic aspects of

Gondwana rocks.

- (3) Stratigraphy, distribution & age of Deccan Traps.
- (4) Stratigraphy, distribution & fossil contents of Bagh & Lameta Bed.
- (5) Distribution, Stratigraphy & Palaeontology of salt Range group of rocks.

Unit-5

- (1) Distribution, Stratigraphy & Economics of Palaeozoic rocks of Spiti Valley.
- (2) Stratigraphy, Distribution, Fossil content of Cretaceous rocks of Trichinapalli.
- (3) Stratigraphy, distribution, Fossil content & Economics of Jurassic rocks of Kutch-Region.
- (4) Distribution, Stratigraphy, economic importance of Tertiary rocks of Assam-Region.
- (5) Distribution, Stratigraphy & Palaeontological importance of Siwalik group of rocks.

Practicals:-

- (1) Study of Morphology of Fossils belonging to various phyla.
- (2) Study of Important plant fossils.
- (3) Representation of Litho-units & Stratigraphic Units in out line map of India.
- (4) Sketching of physiographic and tectonic divisions of India.
- (5) Geological excursion for seven days.

- इकाई—01
- (1) आर्थिक भूविज्ञान परिचय एवं परिप्रेक्ष्य : वैश्विक खनिज निचय एवं संसाधन, दिक्काल में खनिज निक्षेपों का वितरण।
 - (2) खनिज निक्षेपों का वर्गीकरण। भूवैज्ञानिक तापमापी।
 - (3) अयस्क निर्माण की मैग्नीय सांद्रण विधि। उष्णजलीय प्रक्रियायें।
 - (4) अपक्षय उत्पाद एवं अवशिष्ट निक्षेप। आक्सीकरण एवं सल्फाइड समृद्धि प्रक्रम।
 - (5) अयस्क निर्माण की अवसादी प्रक्रिया। बलकृत सांद्रण।
- इकाई—02
- भारत के संदर्भ में निम्नलिखित धात्विक/अधात्विक खनिज निक्षेपों की प्राप्ति अवस्था, खनिजकीय विशेषता, भूवैज्ञानिक एवं भौगोलिक वितरण एवं आर्थिक उपयोगों का वितरण।
- (1) लौह, मैगनीज, क्रोमियम।
 - (2) ताम्र, सीसा, जस्ता।
 - (3) सोना, अल्युमिनियम।
 - (4) तापसह एवं उर्वरकखनिज।
 - (5) सीमेंट एवं केमिकल उद्योग में प्रयुक्त खनिज।
- इकाई—03
- (1) कोयला निक्षेपों की उत्पत्ति, परिभाषा एवं संस्तर विज्ञान।
 - (2) कोल शैलिकी के मूलभूततथ्य। पीट, लिग्नाईट, बिटूमिनस, एंथ्रासाइट कोल, भारतीय कोल निक्षेप: विशेष संदर्भ में छत्तीसगढ़।
 - (3) प्राकृतिक हाइड्रोकार्बन की उत्पत्ति, स्थानांतरण एवं संचयन। आयल ट्रेप के प्रकार: संरचनात्मक, संस्तर विज्ञानी एवं मिश्रित। भारत के तटीय एवं अपतटीय पेट्रोलियम निक्षेप।
 - (4) रेडियोधर्मी खनिज: खनिजविज्ञान, भूरसायन, पूर्वक्षण तकनीकी, भारत में भौगोलिक एवं भूवैज्ञानिक वितरण।

(5) खनिज आर्थिकी के सिद्धान्त, राष्ट्रीय खनिजनीति ।

इकाई—04

- (1) भूअभियांत्रिकी विज्ञान एवं उसका महत्व । शैलों के अभियांत्रिकी गुण ।
- (2) वृहद् बांध एवं सुरंग निर्माण के लिये भूवैज्ञानिक परिस्थितियों का अध्ययन ।
- (3) हवाई छायाचित्रों एवं उपग्रह इमेजियरी का प्रारंभिक अध्ययन । शहरी विकास में सुदूर संवेदन तकनीकी का अनुप्रयोग ।
- (4) जलचक्र । भूमिगत जल की प्राप्ति अवस्था । भूजल की गुणवत्ता ।
- (5) शैलों के भूजलीय गुण । जलभृत संस्तरों का वर्गीकरण । भारत का भूजल प्रदेश ।

इकाई—05

- (1) खनिज अन्वेषण का परिचय । खनिज अन्वेषण की सतही एवं अधोसतही विधियाँ ।
- (2) आर्थिक खनिजों के लिये पूर्वक्षण विधियाँ: ड्रीलिंग, प्रतिचयन एवं आमामन ।
- (3) भूभौतिकीय पूर्वक्षणतकनीक: गुरुत्वीय, विद्युतीय एवं चुम्बकीय विधियाँ ।
- (4) हवाई पूर्वक्षण विधि एवं भूकम्पीय विधियाँ ।
- (5) खनिज स्त्रोंतों के अत्याधिक दोहन के पर्यावरणीय प्रभाव ।

प्रयोगिक कार्य:

- (1) सैद्धान्तिक पाठ्यक्रम में दिये प्रमुख धात्विक/अधात्विक खनिजों का भौतिक/प्रकाशीय गुणों के आधार पर अध्ययन ।
- (2) भारत के रेखा मानचित्र में प्रमुख धात्विक/अधात्विक खनिजों का वितरण दर्शाना ।
- (3) कोयला एवं उसके विभिन्न प्रकारों के नमूनों का स्थूलदर्शी अध्ययन ।
- (4) खनिज निष्कर्षण से संबंधित प्रायोगिक अभ्यास कार्य: निक्षेप आकलन, टनेज फेक्टर आकलन, ड्रीलिंग आदि से अभ्यास ।
- (5) स्टिरियोस्कोप के द्वारा ऐरियल छायाचित्र का अध्ययन एवं विवेचना ।
- (6) उपग्रह इमेजियरी का अध्ययन एवं विवेचना ।
- (7) शैलों के भौमजलीय गुणों का अध्ययन, भौमजलीय मानचित्रों का बनाना एवं अध्ययन
- (8) दस दिवसीय भूवैज्ञानिक क्षेत्रीय अध्ययन

Suggested Readings:

- (1) आर्थिक भूविज्ञान— कृष्ण गोपाल व्यास
- (2) आर्थिक एवं व्यावहारिक भूविज्ञान— आर.पी. मांजरेकर
- (3) भौमजल विज्ञान— एल.के. रिछारिया
- (4) प्रारंभिक खनिकी— बी.के. सिंह
- (5) प्रायोगिक भूविज्ञान भाग—3— गुप्ता, पुनवटकर एवं रघुवंशी
- (6) Economic mineral deposits of India- Umeshwar Prasad.
- (7) Economic mineral deposits- A.Bateman
- (8) Ore-deposit of India- Gokhale & Rao
- (9) India's Mineral Resource- S. Krishnaswami
- (10) Principle of Engineering Geology & Geotechniques- Krynine & Judd.
- (11) Groundwater Hydrology- D.K. Todd
- (12) Courses in mining Geology- R.N.P. Arogyaswami
- (13) Principle & Application of photogeology- S.N. Pandey.
- (14) Ground water- Assessment, Development & Management- K.R. Karanth
- (15) Geophysical methods in Geology- P.V. Sharma.
- (16) Environmental Geology- K.S. Valdiya (1987)

Class- B.Sc-III
Paper –II
(Earth Resources & Applied Geology)

- Unit-1**
- (i) Economic Geology & its perspectives; Global mineral deposit & resource. Distribution of mineral deposits in time & space.
 - (ii) Classification of mineral deposits. Geological thermometers.
 - (iii) Magmatic & Hydrothermal processes of mineral formation.
 - (iv) Weathering : product & Residual deposit. Oxidation & sulphide supergene Enrichment processes.
 - (vi) Sedimentary processes of mineral formation. Placer deposits.
- Unit-2**
- Geological, Geographical distribution, mode of occurrence, mineralogy & economic importance of following metallic & nonmetallic deposits of India.
- (i) Iron, Manganes, Chromium
 - (ii) Copper, Lead, Zinc
 - (iii) Gold, Aluminium
 - (iv) Refractory and Fertilizer minerals
 - (v) Minerals used in cement & chemical industries.
- Unit-3**
- (i) Coal deposit: Origin, Definition & stratigraphy
 - (ii) Fundamentals of coal petrography. Peat, Lignite, Bituminous & Anthracite
Coal deposits of Chhattisgarh.
 - (iii) Origin of Natural-hydrocarbon, migration & accumulation. Types of oil traps; Structural, stratigraphic and composite. Offshore & onshore oil deposits of India.
 - (iv) Radioactive mineral : Mineralogy, Geochemistry, Prospecting techniques, Geological & Geographical distribution of atomic-mineral.
 - (vi) Principles of mineral economics. National mineral policy.
- Unit-4**
- (i) Engineering geology & its importance, Engineering properties of rocks

- (ii) Geological conditions for establishing of large Dam and Tunnels.
- (iii) Elementary study of Aerial photographs & satellite Imageries. Application of remote sensing in town-planning.
- (iv) Hydrologic cycle. Mode of occurrence of ground water, Quality of ground water.
- (v) Hydrologic properties of rocks. Classification of Aquifers. Ground water provinces of India.

Unit-5

- (i) Introduction to mineral exploration, Surface & subsurface methods of mineral Exploration.
- (ii) Prospection methods; Drilling, Sampling & Assaying.
- (iii) Geophysical prospecting techniques : Gravity, Electrical & Magnetic methods.
- (iv) Aerial and seismic prospecting methods.
- (v) Environmental impacts of over exploitation of mineral resources.

Practical-

- (1) Study of important metallic/nonmetallic minerals on the basis of physical & optical properties.
- (2) Distribution of main metallic/nonmetallic deposits within outline map of India.
- (3) Magascopic studies of coal & its varieties.
- (4) Exercises related with mineral exploration; Reserve calculation, Tonnage factor calculation, Exercises related with drilling.
- (5) Study of Aerial photographs with the help of stereoscopes.
- (6) Study of satellite imageries.
- (7) Study of hydrologic properties of rocks, Preparation of hydrological maps.
- (8) Geological excursion for ten days.

BIOCHEMISTRY

PAPER - I

ENZYMOLGY

M.M. 50

UNIT-I INTRODUCTION

History, general characteristics, nomenclature, IUB enzyme classification (rationale, over view and specific examples), significance of numbering system. Definitions with examples of holoenzyme, apoenzyme, coenzymes. cofactors, activators, inhibitors, active site (identification of groups excluded), metallo-enzymes, units of enzyme activity, specific enzymes, Isoenzymes, monomeric enzymes, oligomeric enzymes and multienzyme complexes. Enzyme specificity.

Historical perspective, nature of non-enzymatic and enzymatic catalysis. Measurement and expression of enzyme activity-enzyme assays. Definition of IU, Katal, enzyme turn over number and specific activity. Role of non-protein organic molecules and inorganic ions coenzyme, prosthetic groups. Role of vitamins as coenzymes precursors (general treatment).

UNIT-I ENZYME CATALYSIS

Role of cofactors in enzyme catalysis : NAD/NADP+, FMN/FAD, coenzyme A, biocytin, cobamide, lipoamide, TPP, pyridoxal phosphate, tetrahydrofolate and metal ions with special emphasis on coenzyme functions. Acid-base catalysis, covalent, proximity and orientation effects, strain and distortion theory. Mechanism of action of chymotrypsin, carboxypeptidase, ribonuclease and lysozyme.

UNIT-III ENZYME PURIFICATION

Methods for isolation, purification and characterization of enzymes.

UNIT-IV ENZYME KINETICS

Factors affecting enzyme activity : enzyme concentration, substrate concentration, pH and temperature. Derivation of Michaelis-Menten equation for uni-substrate reactions. K_m and its significance. Line weaver-Burk plot and its limitations. Importance of K_{cat}/K_m . Bi-substrate reactions-brief introduction to sequential and ping-pong mechanism with examples.

Kinetics of zero and first order reactions. Significance and evaluation of energy of activation and free energy.

Reversible and irreversible inhibition, competitive, non-competitive and uncompetitive inhibitions. determination of K_m & V_{max} in presence and absence of inhibitor. Allosteric enzymes.

UNIT-V INDUSTRIAL AND CLINICAL APPLICATION OF ENZYME.

Immobilization of enzyme and their industrial applications. Production of glucose from starch, cellulose and dextran; use of lactase in dairy industry; production of glucose-fructose syrup from sucrose; use proteases in food, detergent and leather industry; medical application of enzymes. use of glucose oxidase in enzyme electrodes.

UNIT-I INTRODUCTION TO METABOLISM

General features of metabolism, experimental approaches to study metabolism; use of intact organism, bacterial mutants, tissue slices, stable and radioactive isotopes.

CARBOHYDRATE METABOLISM

Reactions and energetics of glycolysis. Alcoholic and lactic acid fermentations. Entry of fructose, galactose, mannose etc. Reactions and energetics of TCA cycle. Gluconeogenesis, glycogenesis and glycogenolysis, Reactions and physiological significance of pentose phosphate pathway. Regulation of glycolysis and TCA cycle. Photosynthesis, a brief review.

UNIT-II ELECTRON TRANSPORT CHAIN AND OXIDATIVE PHOSPHORYLATION

Structure of mitochondria, sequence of electron carriers, sites of ATP production, inhibitors of electron transport chain. Hypothesis of mitochondrial oxidative phosphorylation (basic concepts). Inhibitors and uncouplers of oxidative phosphorylation. Transport of reducing potentials into mitochondria.

UNIT-III LIPID METABOLISM

Introduction, hydrolysis of triacylglycerols, transport of fatty acids into mitochondria. β - oxidation of saturated fatty acids, ATP yield from fatty acid oxidation. biosynthesis of saturated and unsaturated fatty acids. Metabolism of ketone bodies, oxidation of unsaturated and odd chain fatty acids. Biosynthesis of triglycerides and important phospholipids, glycolipids, sphingolipids and cholesterol. Regulation of cholesterol metabolism.

UNIT-IV AMINO ACID METABOLISM

General reactions of amino acid metabolism : transamination, oxidative deamination and decarboxylation. Urea cycle. Degradation and biosynthesis of amino acids. Glycogenic and ketogenic amino acids.

UNIT-V NUCLEOTIDE METABOLISM

Sources of the atoms in the purine and pyrimidine molecules. Biosynthesis and degradation of purines and pyrimidines. Regulation of purine and pyrimidine biosynthesis.

PORPHYRIN METABOLISM

Biosynthesis and degradation of porphyrins. Production of bile pigments.

PRACTICAL

1. Separation of Blood Plasma and Serum
 - a. Estimation of proteins from serum by biuret and lowry methods.
 - b. Determination of albumin and A/G ratio in serum.
2. Estimation of bilirubin (conjugated and unconjugated) in serum.
3.
 - i. Estimation of total lipids in serum by vanillin method.

- ii Estimation of cholesterol in serum.
- 4 Estimation of lipoproteins in plasma.
- 5 Estimation of lactic acid in blood before and after exercise.
- 6 Estimation of blood urea nitrogen from plasma.
- 7 Separation and identification of amino acids by (a) paper chromatography and (b) thin-layer chromatography.
- 8 Separation of polar and non-polar lipids by thin-layer chromatography.
- 9 Estimation of SGPT and SGOT in serum.
- 10.
 - a Assay of serum alkaline phosphatase activity.
 - b Inhibition of alkaline phosphatase activity by EDTA.
 - c Effect of substrate concentration on alkaline phosphatase activity and determination of its K_m value.
- 11.
 - a Effect of temperature on enzyme activity and determination of activation energy.
 - b Effect of pH on enzyme activity and determination of optimum pH.
 - c Effect of enzyme concentration on enzyme activity.
- 12.
 - a Preparation of starch from potato and its hydrolysis by salivary amylase.
 - b Determination of achromatic point in salivary amylase.
 - c Effect of sodium chloride on amylases.

B.Sc.–II (BOTANY) PAPER-I

(PLANT TAXONOMY, ECONOMIC BOTANY, PLANT ANATOMY AND EMBRYOLOGY)

UNIT-I

Bentham and Hooker system of classification. Binomial Nomenclature, International Code of Nomenclature for Algae, Fungi, and plants (IUCN), Typification, numerical Taxonomy and chemotaxonomy. Preservation of Plant material and Herbarium techniques. Important botanical gardens and herbaria of India, Kew Botanical garden, England.

UNIT-II

Systematic position, distinguishing characters and economic importance of the following families, Ranunculaceae, Magnoliaceae, Brassicaceae, Rosaceae, Papaveraceae, Caryophyllaceae, Rutaceae, Cucurbitaceae, Apiaceae, Rubiaceae, Apocynaceae, Asclepiadaceae, Solanaceae, Malvaceae, Convolvulaceae, Orchidaceae, Acanthaceae, verbenaceae, Lamiaceae, Asteraceae, Fabaceae, Euphorbiaceae, Poaceae and Liliaceae.

UNIT-III

Economic Botany: Botanical name, family, part used and uses of the following economically important plants, fiber yielding plants; Cotton, jute, sun, hemp, coir. Timber yielding plants: Sal, Teak, Shisham and Pine. Medicinal plants: Kalmegh, Ashwagandha, Ghritkumari, Giloy, Brahmi, sarpandha, ---of medicinal plants of C.G. Food plants: Pearl millet, Buck of wheat, Sorghum, Soyabean, gram, Ground nut, Sugarcane and Potato. Fruit plants: Pear, Peach, Litchi. Spices: Cinnamon, Turmeric, Ginger, Asafoetida and Cumin. Beverages : Tea, Coffee Rubber Cultivation of important flowers: Chrysanthemum, Dahelia, Biodiesel plants Jatropa, Pongamia Ethnobotany in context of Chhattisgarh.

UNIT-IV

Plant Anatomy: Root and shoot apical meristems theories of root and shoot apex organization, permanent tissues, anatomy of root, stem and leaf of dicot and monocot, secondary growth in root and stem, Anatomical anomalies in the primary structure of stems (Nyctanthes, Boerhaavia, Casuarina), Anamolous secondary growth in Dracaena, Bignonia, Laptadenia.

UNIT-V

Embryology: Flower as a reproductive organ, anther, microsporogenesis, types of ovules, megasporogenesis, development of male and female gametophyte, pollination, mechanisms, self incompatibility, fertilization, endosperm, embryo, polyembryonoy, apomixes and parthenocarpy.

Books Recommended:

Singh, Pandey, Jain. *Diversity and Systematics of Seed Plants*, Rastogi Publications Merrut

Sharma OP, *Plant Taxonomy*, Tata Mc Graw Hill, New Delhi

Pandey BP, *Taxonomy of Angiosperms*, S. Chand Publishing, New Delhi

Pandey, BP, *Plant Anatomy*, S.Chand Publishing, New Delhi

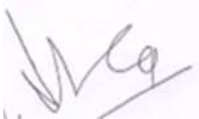
Pandey, BP, *Economic Botany*, S.Chand Publishing, New Delhi

Bhojwani, SS and Bhatanagar SP, *Embryology of Angiosperm*, Vikas Publication House, New Delhi

Singh, Pandey, Jain, *Embryology of Angiosperms*, Rastogi Publication, Meerut

Sharma, V, Alum, A. *Ethnobotany*, Rastogi Publications, Meerut

Tayal, MS *Plant Anatomy*, Rastogi Publication, Meerut

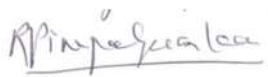


(Dr. J.N. Verma)

Proff. & Head

Govt. D.B. Girls PG College

Raipur, (C.G.)



(Dr. Rekha Pimpalgaonkar)

Proff. & Head

Govt. N PG Science College

Raipur, (C.G.)

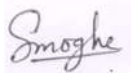


(Dr. Ranjana Shrivastava)

Proff. & Head

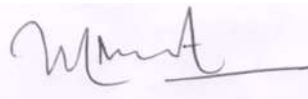
Govt. VYTPG Science College

Raipur, (C.G.)



(Mrs. Sanchal Moghe)

Govt. Bilasa Girls College, Bilaspur



(Mr. Shivakant Mishra)

(Mr. Sudheer Tiwari)

B.Sc.-II (BOTANY) PAPER-II
(ECOLOGY AND PLANT PHYSIOLOGY)

UNIT-I

Introduction and scope of ecology, environmental and ecological factors, Soil formation and soil profile, Liebig's law of minimum, Shelford's law of tolerance, morphological and anatomical adaptations in hydrophytes, xerophytes and epiphytes.

UNIT-II

Population and community characteristics, Raunkiaer's life forms, population interactions (e.g. Symbiosis, Amensalism etc.), succession, ecotone and edge effect, ecological niches, ecotypes, ecads, keystone species

Concept of ecosystem, trophic levels, flow of energy in ecosystem, food chain and food web, concept of ecological pyramids

Biogeochemical cycles: carbon cycle, nitrogen cycle and phosphorus cycle

UNIT-III

Plant water relations: Diffusion, permeability, osmosis, imbibitions, plasmolysis, osmotic potential and water potential, Types of soil water, water holding capacity, wilting, Absorption of water, theories of Ascent of sap, Mineral nutrition and absorption, Deficiency symptoms, Transpiration, stomatal movement, significance of transpiration, Factors affecting transpiration, guttation.

UNIT-IV

Photosynthesis: Photosynthetic apparatus and pigments, light reaction mechanism of ATP synthesis. C₃, C₄ CAM pathway of carbon reduction, photorespiration, factors affecting photosynthesis.

Respiration: Aerobic and anaerobic respiration, Glycolysis, Krebs's cycle, factors affecting respiration, R.Q.

UNIT-V

Plant growth hormones: Auxin, Gibberellin, Cytokinin, Ethylene and Abscisic acid. Physiology of flowering, Florigen concept, Photoperiodism and Vernalization. Seed dormancy and germination, plant movement.

Books Recommended:

Koromondy, E.J. *Concepts of Ecology*, Prentice Hall, USA

Singh, JS Singh SP and Gupta SR. *Ecology and Environmental Science and Conservation*, S. Chand Publishing, New Delhi

Sharma, PD. *Ecology and Environment*, Rastogi Publications, Meerut

Hopkins, WG and Huner, PA. *Introduction to Plant Physiology*, John Wiley and Sons.

Pandey SN and Sinha BK, *Plant Physiology*, Vikas Publishing, New Delhi

Taiz, L and Zeiger. E. *Plant Physiology*, 5th edition, Sinauer Associates Inc. M.A, USA

Srivastava, HS *Plant Physiology and Biotechnology*, Rastogi Publications, Meerut

B.Sc. II (BOTANY)

Practical

1. Taxonomy: Detailed description and identification of locally available plants of the families as prescribed in the theory paper.
2. Economic Botany: Identification and comment on the plants and plant products belonging to different economic use categories
3. Preparation of Herbarium of local wild plants.
4. Quantitative vegetation analysis of a grassland ecosystem.
5. Anatomical characteristics of hydrophytes and xerophytes.
6. Demonstration of root pressure.
7. Demonstration of transpiration.
8. Demonstration of evolution of O₂ in photosynthesis, factors affecting of photosynthesis.
9. Comparison of R.Q. of different respiratory substrates.
10. Demonstration of fermentation.
11. Determination of BOD of a water body.
12. Demonstration of mitosis.

PRACTICAL SCHEME

TIME: 4 Hrs.

M.M. : 50

1.	Anatomy	08
2.	Economic Botany	04
3.	Physiology	08
4.	Ecology	10
5.	Spotting	10
6.	Viva-Voce	05
7.	Project Work/ Field Study	10

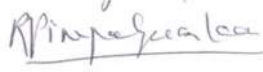


(Dr. J.N. Verma

Proff. & Head

Govt. D.B. Girls PG College

Raipur, (C.G.)



(Dr. Rekha Pimpalgaonkar)

Proff. & Head

Govt. N PG Science College

Raipur, (C.G.)

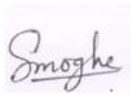


(Dr.Ranjana Shrivastava)

Proff. & Head

Govt. VYTPG Science College

Raipur, (C.G.)



(Mrs. Sanchal Moghe)

Govt. Bilasa Girls College, Bilaspur



(Mr. Shivakant Mishra)

(Mr Sudheer Tiwari)

Zoology
B.Sc. Part – II 2018-19
Paper – I
(Anatomy and Physiology)

Comparative Anatomy of various organ systems of vertebrates:

Unit: I

- Integument and its derivatives: structure of scales, hair and feathers
- Alimentary canal and digestive glands in vertebrates
- Respiratory organs : Gills and lung , air-sac in birds

Unit: II

- Endoskeleton: (a) Axial Skeleton- Skull and Vertebrae, (b) Appendicular Skeleton
Limbs and girdles
- Circulatory System: Evolution of heart and aortic arches
- Urinogenital System: Kidney and excretory ducts

Unit: III

- Nervous System: General plan of brain and spinal cord
- Ear and Eye: structure and function
- Gonads and genital ducts

Unit: IV

- Digestion and absorption of dietary components
- Physiology of heart, cardiac cycle and ECG
- Blood Coagulation
- Respiration: mechanism and control of breathing

Unit: V

- Excretion: Physiology of excretion, osmoregulation
- Physiology of muscle contraction
- Physiology of nerve impulse, Synaptic transmission

Zoology

B.Sc. Part – II 2018-19

Paper-II

VERTEBRATE ENDOCRINOLOGY, REPRODUCTIVE BIOLOGY BEHAVIOUR, EVOLUTION AND APPLIED ZOOLOGY

Unit: I

- Structure and function of Endocrine glands
- Hormone receptor
- Biosynthesis and secretion of thyroid, adrenal, ovarian and testicular hormones
- Endocrine disorder of pituitary, thyroid, adrenal and pancreas

Unit:II

- Reproductive cycle in vertebrates
- Menstruation, lactation and pregnancy
- Mechanism of parturition
- Hormonal regulation of gametogenesis

Unit: III

- Evidences of organic evolution.
- Theories of organic evolution.
- Variation, Mutation, Isolation and Natural selection.
- Evolution of Horse

Unit:IV

- Introduction to Ethology: Branches and concept of ethology.
- Patterns of Behaviour, Taxes, Reflexes, Drives and Stereotyped behaviour.
- Reproductive behavioural patterns.
- Drugs and behavior, Hormones and behaviour

Unit:V

- Prawn Culture
- Sericulture
- Apiculture
- Pisciculture
- Poultry keeping
- Elements of Pest Control: Chemical & Biological Control

Zoology
B.Sc. Part II 2018-19
Practical

The practical work in general shall be based on the syllabus prescribed and the students will be required to show the knowledge of the following:

- Study of the representative examples of the different chordates (Classified characters).
- Dissection of various systems of scoliodon-Afferent and Efferent branchial cranial nerves, internal ear.

Alternative methods: By Clay/Thermacol/ Drawing/ Model etc.)

- Simple microscopic technique through unstained or stained permanent mount.
- Study of prepared slides histological, as per theory papers.
- Study of limb girdles and vertebrae of Frog, Varanus, Fowl and Rabbit.
- Identification of species and individual of honey bee.
- Life cycle of honey bee and silkworm.
- Exercise based on Evolution and Animal behavior.

Scheme of Practical Exam

Time: 3:30hrs

• Major dissection (Cranial nerves/efferent branchial vessel)	10
• Exercise based on evolution	05
• Exercise based on applied zoology	05
• Exercise based on animal behavior	04
• Spotting-8 (slides-4,bones-2,specimen-2)	16
• Viva	05
• Sessional marks.	05

COMPUTER SCIENCE
PAPER - I
COMPUTER HARDWARE
(Paper Code - 0855)

Duration 3 hours

Max. Marks 50

AIM - The emphasis is on the design concepts & organisational details of the common PC, leaving the complicated electronics of the system of the computer Engineers.

OBJECT OF THE COURSE -

- 1 To introduce the overall organisation of the microcomputers.
- 2 To introduce the common peripheral devices used in computers.
- 3 To introduce the hardware components, use of micro processor and function of various chips used in microcomputer.

N.B. : Since the computer organisation study is very vast & complicated, so the study is restricted to only the description and understanding part, hence the paper setter is requested to keep this important factor in mind.

UNIT-I CLASSIFICATION AND ORGANIZATION OF COMPUTERS

Digital and analog computers and its evolution. Major components of digital computers; Memory addressing capability of CPU; word length and processing speed of computers. Microprocessors single chip microcomputers; large and small computers. Users interface Hardware software and firmware. multi programming multi user system. Dumb smart and intelligent terminals computer network and multi processing, LAN parallel processing. Flinn's classification of computers. Computer flow and data flow computers.

UNIT-II CENTRAL PROCESSING UNIT.

CPU organization, ALU control unit registers. Instructions for INTEL 8085, Instruction word size, Various addressing mode interrupts and exceptions, some special Control signals and I/O devices. Instruction cycle fetch and execute operation, time Diagram, data flow.

UNIT-III MEMORY OF COMPUTERS.

Main memory secondary memory, backup memory, cache memory; real and virtual Memory Semiconductor memory. Memory controller and magnetic memory; RAM; disks, optical disks Magnetic bubble memory; DASD, destructive and non destructive. readout. Program of data Memory and MMU.

UNIT-IV I/O DEVICES.

I/O devices of micro controller; processors. I/O devices, printer, plotter, other output devices, I/O port serial data transfer scheme, Micro controller, signal processor, I/O processor I/O processor arithmetic processor.

UNIT-V SYSTEM SOFTWARE AND PROGRAMMING TECHNIQUE.

ML, AL, HLL, stac subroutine debugging of programs macro, micro programming, Program Design, software development, flow & chart multi programming, multiuser, multi tasking Protection, operating system and utility program, application package.

B.Sc.-II

(49)
Anil 11/6/18
(Dr. A.K. Divedi)
11/6/18
(Dr. J. Dey)
Pat. had

Y.M.
Tade
11-06-18
Hem Shankar Prasad Tade

11/06/18
(L.K. Gavel)

11-06-2018
(Dr. Sausay Kumar)

RECOMMENDED BOOKS :

- 1 Computer Fundamentals : Architecture and Organization - By B.Ram (Wilwy East-ern Ltd.)
- 2 Computers Today - By Donal H. Sanders
- 3 Computers Fundamental - By Rajaraman.
- 4 IBM PC - XT Clones - By Govinda Rajalu

PAPER - II

SOFTWARE

(Paper Code - 0856)

AIM - Introduction to the web-language-HIML & problem solving through the concept of object oriented programming.

OBJECT OF THE COURSE -

- 1 To introduce the internet & web related technology & learn the intricacies of web-page designing using HIML.
- 2 To introduce the object oriented programming concept using C++ language.
- 3 To introduce the problem solving methodology using the C++ programming features.

N.B. : Examiners are requested to prepare unit-wise Questions papers.

UNIT-I HTML BASICS & WEB SITE DESIGN PRINCIPLES

Concept of a Web Site, Web Standards, What is HIML? HIML Versions, Naming Scheme for HIML Documents , HIML document/file, HIML Editor , Explanation of the Structure of the homepage , Elements in HIML Documents ,HIML Tags, Basic HIML Tags, Comment tag in HIML, Viewing the Source of a web page, How to download the web page source? XHTML, CSS, Extensible Markup Language (XML), Extensible Style sheet language (XSL), Some tips for designing web pages, HIML Document Structure. HIML Document Structure-Head Section, Illustration of Document Structure, <BASE> Element, <ISINDEX> Element, <LINK> Element ,META, <TITLE> Element, <SCRIPT> Element ,Practical Applications, HIML Document Structure-Body Section:-Body elements and its attributes: Background; Background Color; Text; Link; Active Link (ALINK); Visited Link (VLINK); Left margin; Top margin, Organization of Elements in the BODY of the document: Text Block Elements; Text Emphasis Elements; Special Elements - Hypertext Anchors; Character-Level Elements; Character References ,Text Block Elements: HR (Horizontal Line); Hn (Headings) ; P (Paragraph); Lists; ADDRESS ; BLOCKQUOTE; TABLE; DIV (HTML 3.2 and up) ; PRE (Preformatted); FORM ,Text Emphasis Elements, Special Elements - Hypertext Anchors ,Character-Level Elements: line breaks (BR) and Images (IMG), Lists , ADDRESS Element, BLOCKQUOTE Element, TABLE Element, COMMENTS in HTML ,CHARACTER Emphasis Modes, Logical & Physical Styles, Netscape, Microsoft and Advanced Standard Elements List, FONT, BASEFONT and CENTER.

UNIT-II IMAGE, INTERNAL AND EXTERNAL LINKING BETWEEN WEBPAGES

Netscape, Microsoft and Advanced Standard Elements List, FONT, BASEFONT and CENTER Insertion of images using the element IMG (Attributes: SRC (Source),

B.Sc.-II

(50)

Suresh
11/06/18
Dr. Jayaraman

Gavel
11/06/18
C.L.K.Gavel

JMP
Tandl
11.06.18
Hari Shanker Prasad Tandl

Anuj
11/6/18
(Dr. A.K. Privedi)
Dr. J. Dey
11/6/18
Dr. R. S.

WIDTH, HEIGHT, ALT (Alternative), ALIGN), IMG (In-line Images) Element and Attributes; Illustrations of IMG Alignment, Image as Hypertext Anchor, Internal and External Linking between Web Pages Hypertext Anchors ,HREF in Anchors ,Links to a Particular Place in a Document ,NAME attribute in an Anchor ,Targeting NAME Anchors ,TITLE attribute, Practical IT Application Designing web pages links with each other, Designing Frames in HTML. Practical examples.

UNIT-III INTRODUCTION TO OOP

Advantages of OOP, The Object Oriented Approach, Characteristics of object oriented languages- Object, Classes, Inheritance, Reusability, Polymorphism and C++.

Function: Function Declaration, Calling Function, Function Defines, Passing Argument to function, Passing Constant, Passing Value, Reference Argument, returning by reference, Inline Function, Function Overloading, Default Arguments in function.

UNIT-IV OBJECT CLASSES AND INHERITANCE

Object and Class, Using the class, class constructor, class destructors, object as function argument ,copy constructor ,struct and classes , array as class member, Static Class Data, Static Member Functions, , Friend function, Friend class, operator overloading. Type of inheritance, Base class, Derive class. Access Specifier: protected. Function Overriding, member function, String, Template Function.

UNIT-V POINTERS AND VIRTUAL FUNCTION

pointers: & and * operator pointer variables, .pointer to pointer, void pointer, pointer and array, pointer and function, pointer and string, memory management, new and delete, pointer to object, this pointer Virtual Function: Virtual Function, Virtual member function, accesses with pointer, pure virtual function

File and Stream: C++ streams, C++ Manipulators, Stream class, string I/O, char I/O, Object I/O, I/O with multiple object, Disk I/O,

RECOMMENDED BOOKS :

1. Introduction to HTML : Kamlesh Agarwala, O.P.Vyas, Prateek A. Agrawala (Kitab Mahal Publication)
2. Let us C++ : Y. Kanetkar B.P.B Publication
3. Programming in C++ : E. Balaguruswami
4. Mastering in C++ : Venu Gopal
5. Object Oriented Programming in C++ : Lafore R, Galgotia Publications.

B.Sc.-II

Shyam
11-06-18
(Dr. Sujay Kumar)

Gaur
11/06/18
(L. K. Gaur)

Y.M. Ladd
11-06-18
Hari Shankar Prasad Radd

Anuj
11/6/2018
(Dr. A.K. Devidi)

(51)

Dr. J. Dnyaneshwar
11/6/18
(Dr. J. Dnyaneshwar)



बिलासपुर विश्वविद्यालय, बिलासपुर (छ.ग.)

पाठ्यक्रम
SYLLABUS

सत्र: 2017-18

बी.एससी. भाग-3

B.Sc. PART-3

PT. RAVISHANKAR SHUKLA UNIVERSITY RAIPUR (C.G.)

REVISED ORDINANCE NO. 21

BACHELOR OF SCIENCE

1. The three year course has been broken up into three Parts. Part-I known as B.Sc. Part-I examination at the end of the first year, Part-II known as B.Sc. Part-II examination at the end of the second year and Part-III known as B.Sc. Part-III examination at the end of the third year.
2. A candidate who after passing (10+2) Higher Secondary or Intermediate examination of C.G. Board of Secondary Education Bhopal or any other Examination recognised by the University or C.G. Board of Secondary Education as equivalent thereto, has attended a regular course of study in an affiliated College or in the Teaching Department of the University for one academic year shall be eligible for appearing at the B.Sc. Part-I examination.
3. A candidate who, after passing the B.Sc.-I examination of the University or any other examination recognised by the University as equivalent thereto, has attended a regular course of study for one academic year in an affiliated college or in the Teaching Department of the University shall be eligible for appearing at the B.Sc. Part-II examination.
4. A candidate who, after passing the B.Sc. Part-II examination of the University, has completed a regular course of study for one academic year in an affiliated college or in the Teaching Department of the University shall be eligible for appearing at the B.Sc. Part-III examination.
5. Besides regular students, subject to their compliance with this Ordinance ex-student and non-collegiate candidates shall be permitted to offer only such subjects/papers as are taught to the regular student at any of the University Teaching Department or College.
6. Every candidate appearing in B.Sc. Part-I, Part-II and Part-III examination shall be examined in -
 - (i) Foundation Course :
 - (ii) Any one of the following combinations of three subjects :-
 1. Physics, Chemistry & Mathematics.
 2. Chemistry, Botany & Zoology.
 3. Chemistry, Physics & Geology.
 4. Chemistry, Botany & Geology.
 5. Chemistry, Zoology & Geology.
 6. Geology, Physics & Mathematics.
 7. Chemistry, Mathematics & Geology.
 8. Chemistry, Botany & Defence Studies.
 9. Chemistry, Zoology & Defence Studies
 10. Physics, Mathematics & Defence Studies.
 11. Chemistry, Geology & Defence Studies
 12. Physics, Mathematics & Statistics
 13. Physics, Chemistry & Statistics
 14. Chemistry, Mathematics & Statistics.
 15. Chemistry, Zoology & Anthropology.
 16. Chemistry, Botany & Anthropology.
 17. Chemistry, Geology & Anthropology.
 18. Chemistry, Mathematics & Statistics.

19. Chemistry, Anthropology & Defence Studies.
 20. Geology, Mathematics & Statistics.
 21. Mathematics, Defence Studies & Statistics
 22. Anthropology, Mathematics & Statistics
 23. Chemistry, Anthropology & Applied Statistics
 24. Zoology, Botany & Anthropology
 25. Physics, Mathematics & Electronics.
 26. Physics, Mathematics & Computer Application
 27. Chemistry, Mathematics & Computer Application
 28. Chemistry, Bio-Chemistry & Pharmacy
 29. Chemistry, Zoology & Fisheries.
 30. Chemistry, Zoology & Agriculture
 31. Chemistry, Zoology & Sericulture
 32. Chemistry, Botany & Environmental Biology
 33. Chemistry, Botany & Microbiology
 34. Chemistry, Zoology & Microbiology
 35. Chemistry, Industrial Chemistry & Mathematics
 36. Chemistry, Industrial Chemistry & Zoology
 37. Chemistry, Biochemistry, Botany
 38. Chemistry, Biochemistry, Zoology
 39. Chemistry, Biochemistry, Microbiology
 40. Chemistry, Biotechnology, Botany
 41. Chemistry, Biotechnology, Zoology
 42. Geology, Chemistry & Geography
 43. Geology, Mathematics & Geography
 44. Mathematics, Physics & Geography
 45. Chemistry, Botany & Geography
- (iii) Practical in case prescribed for core subjects.

7. Any candidate who has passed the B.Sc. examination of the University shall be allowed to present himself for examination in any of the additional subjects prescribed for the B.Sc. examination and not taken by him at the degree examination. Such candidate will have to first appear and pass the B.Sc. Part-I examination in the subjects which he proposes to offer and then the B.Sc. Part-II and Part-III examination in the same subject. Successful candidates will be given a certificate to that effect.
8. In order to pass at any part of the three year degree course examination an examinee must obtain not less than 33% of the total marks in each subject/ group of subjects. In subject/ group of subjects where both theory and practical examination are provided an examinee must pass in both theory and practical parts of the examination separately.
9. Candidate will have to pass separately at the Part-I, Part-II and Part-III examinations. No division shall be assigned on the result of the Part-I and Part-II examination. In determining the division of the final examination, total marks obtained by the examinees in their Part-I, Part-II and Part-III examination in the aggregate shall be taken in to account. Provided in case of candidate who has passed the examination through supplementary examination having failed in one subject/ group only, the total aggregate marks being carried over for determining the division shall include actual marks obtained in the subject/ group in which he appeared at the supplementary examination.

10. Successful examinee at the Part-III examination obtaining 60% or more marks shall be placed in the First Division, those obtaining less than 60% but not less than 45% marks in the Second Division and other successful examinees in the Third Division.

= = =

In clause 6(ii) after serial No. 41, 42-45 inserted. Approved in 23rd Co-Ordination committee
Dated 15-01-2014.

B. Sc. Part - III

विषय-सूची

1.	Revised Ordinance No. 21	3
2.	Scheme of Examination	5
3.	Foundation Course : आधार पाठ्यक्रम	7
4.	Chemistry (रसायन शास्त्र)	9
5.	Physics (भौतिक शास्त्र)	15
6.	Mathematics	19
7.	Botany (वनस्पति शास्त्र)	26
8.	Zoology (प्राणी शास्त्र)	29
9.	Microbiology (सूक्ष्म जीव विज्ञान)	32
10.	Geology (भूविज्ञान)	35
11.	Statistics (सांख्यिकी)	38
12.	Defence Studies (रक्षा अध्ययन)	41
13.	Industrial Chemistry (औद्योगिक रसायन)	44
14.	Computer Science	48
15.	Information Technology	53
16.	Industrial Microbiology	55
17.	Electronics (इलेक्ट्रॉनिक्स)	57
18.	Anthropology (मानव विज्ञान)	60
19.	Electronic Equipment maintenance	63
20.	Biotechnology	60
21.	Biochemistry	68

SCHEME OF EXAMINATION

Subject	Paper	Max. Marks	Total Marks	Min. Marks
(A) Compulsory Subject Foundation Course				
1) Hindi Language	I	75	-	26
2) English Language	I	75	-	26
(B) Three Elective Subject :				
2 Chemistry	I	33		
	I	33	100	33
	III	34		
	Practical		50	17
1 Physics	I	50		
	I	50	100	33
	Practical		50	17
3 Mathematics	I	50		
	I	50	150	50
	III	50		
4 Botany	I	50		
	I	50	100	33
	Practical		50	17
5 Zoology	I	50		
	I	50	100	33
	Practical		50	17
6 Geology	I	50		
	I	50	100	33
	Practical		50	17
7 Statistics	I	50		
	I	50	100	33
	Practical		50	17
8 Anthropology	I	50		
	I	50	100	33
	Practical		50	17
9 Inde. chemistry	I	34		
	I	33	100	33
	III	33		
	Practical		50	17

Subject	Paper		Max. Marks	Min. Marks
10. Defence Studies	I	50		
	I	50	100	33
	Practical		50	17
11. Micro Biology	I	50		
	I	50	100	33
	Practical		50	17
12. Electronics	I	50		
	I	50	100	33
	Practical		50	17
13. I.T.	I	50		
	I	50	100	33
	Practical		50	17
14. Computer Science	I	50		
	I	50	100	33
	Practical		50	17
15. Biochemistry	I	50		
	I	50	100	33
	Practical		50	17

USE OF CALCULATORS

The Students of Degree/P.G. Classes will be permitted to use of Calculators in the examination hall from annual 1986 examination on the following conditions as per decision of the standing committee of the Academic Council at its meeting held on 31-1-1986.

1. Student will bring their own Calculators.
2. Calculators will not be provided either by the University or examination centres.
3. Calculators with, memory and following variables be permitted +, -, x, , square, reciprocal, exponentials log, square root, trigonometric functions, sine, cosine, tangent etc. factorial summation, xy, yx and in the light of objective approval of merits and demerits of the viva only will be allowed.

आधार पाठ्यक्रम

हिन्दी भाषा

(पेपर कोड-0891)

प्रथम प्रश्न पत्र

पूर्णांक - 75

(बी.ए., बी.एस.सी., बी.एच.एस-सी., बी.काम., तृतीय वर्ष के पुनरीक्षित एकीकृत आधार पाठ्यक्रम एवं पाठ्य सामग्री का संयोजन 2000-2001 से लागू है)

II सम्प्रेषण कौशल, हिन्दी भाषा और सामान्य ज्ञान II

आधार पाठ्यक्रम की संरचना और अनिवार्य पाठ्य पुस्तक- हिन्दी भाषा एवं समसामयिकी- का संयोजन इस तरह किया गया है कि सामान्य ज्ञान की विषय वस्तु- विकासशील देशों की समस्याओं- के माध्यम और साथ-साथ हिन्दी भाषा का ज्ञान और उसमें सम्प्रेषण कौशल अर्जित किया जा सके । इसी प्रयोजन से व्याकरण की अन्तर्वस्तु को विविध विधाओं की संकलित रचनाओं और सामान्य ज्ञान की पाठ्य सामग्री के साथ अन्तर्गुम्फित किया गया है । अध्ययन-अध्यापन के लिए पूरी पुस्तक की पाठ्य सामग्री है और अभ्यास के लिये विस्तृत प्रश्नावली है । यह प्रश्नपत्र भाषा का है अतः पाठ्य सामग्री का व्याख्यात्मक या आलोचनात्मक अध्ययन अपेक्षित नहीं है । पाठ्यक्रम और पाठ्य सामग्री का संयोजन निम्नलिखित पाँच इकाइयों में किया जाता है । प्रत्येक इकाई को दो भागों में विभक्त किया गया है ।

इकाई - 1 (क) भारत माता : सुमित्रानंदन पंत, परशुराम की प्रतीज्ञा : रामधारी सिंह दिनकर, बहुत बड़ा सवाल : मोहन राकेश, संस्कृति और राष्ट्रीय एकीकरण : योगेश अटल ।

(ख) कथन की शैलियाँ : रचनागत उदाहरण और प्रयोग ।

इकाई -2 (क) विकासशील देशों की समस्याएँ, विकासात्मक पुनर्विचार, और प्रौद्योगिकी एवं नगरीकरण ।

(ख) विभिन्न संरचनाएँ ।

इकाई - 3 (क) आधुनिक तकनीकी सभ्यता, पर्यावरण प्रदूषण तथा धारणीय विकास ।

(ख) कार्यालयीन पत्र और आलेख ।

इकाई - 4 (क) जनसंख्या : भारत के संदर्भ में और गरीबी तथा बेरोजगारी ।

(ख) अनुवाद ।

इकाई - 5 (क) ऊर्जा और शक्तिमानता का अर्थशास्त्र ।

(ख) घटनाओं, समारोहों आदि का प्रतिवेदन और विभिन्न प्रकार के निमंत्रण-पत्र ।

मूल्यांक योजना : प्रत्येक इकाई से एक-एक प्रश्न पूछा जायेगा । प्रत्येक प्रश्न में आंतरिक विकल्प होगा । प्रत्येक प्रश्न के 15 अंक होंगे । प्रत्येक इकाई दो-दो खंड (क्रमशः 'क' और 'ख' में) विभक्त है, इसलिए प्रत्येक प्रश्न के भी दो भाग, (क्रमशः 'क' और 'ख') होंगे । 'क' अर्थात् पाठ एवं सामान्य ज्ञान से संबद्ध प्रश्न के अंक 8 एवं 'ख' अर्थात् भाषा एवं सम्प्रेषण कौशल से संबद्ध प्रश्न के अंक 7 होंगे । इस प्रकार पूरे प्रश्न पत्र के पूर्णांक 75 होंगे ।

PART - II

(Paper Code-0892)

ENGLISH LANGUAGE

M.M. 75

The question paper for B.A./B.Sc./B.Com./B.H.Sc. III Foundation course, English Language and General Answers shall comprise the following items :

Five question to be attempted, each carrying 3 marks.

UNIT-I	Essay type answer in about 200 words. 5 essay type question to be asked three to be attempted.	15
UNIT-II	Essay writing	10
UNIT-III	Precis writing	10
UNIT-IV	(a) Reading comprehension of an unseen passage	05
	(b) Vocabulary based on text	10
UNIT-V	Grammar Advanced Exercises	25

Note : Question on unit I and IV (b) shall be asked from the prescribed text. Which will comprise of popular create writing and the following items. Minimum needs housing and transport Geo-economic profile of M.P. communication Educate and culture. Women and Worm in Empowerment Development, management of change, physical quality of life. War and human survival, the question of human social value survival, the question of human social value, new Economic Philosophy Recent Diberaliation Method) Demoration docontralisation (with reference to 73, 74 constitutional Amendment.

Books Prescribed :

Aspects of English Language And Development - Published by M.P. Hindi Granth Academy, Bhopal.

CHEMISTRY

The new curriculum will comprise of Three papers of 33,33, & 34 marks each and Practical work of 50 marks. The curriculum is to be completed in 180 working days as per the UGC norms & conforming to the directives of the Govt. of Chhattisgarh. The theory papers are of 60 hrs. each duration & the practical work of 180 hrs. duration.

PAPER - I (Paper Code-0895)

INORGANIC CHEMISTRY

M.M. 33

UNIT-I METAL-LIGAND BONDING IN TRANSITION METAL COMPLEXES

Limitations of valence bond theory, an elementary idea of crystal field theory, crystal field splitting in octahedral, tetrahedral and square planar complexes, factors affecting the crystal field parameters.

Thermodynamic and kinetic aspects of metal complexes.

A brief outline of thermodynamic stability of metal complexes and factors affecting the stability, substitution reactions of square planar complexes.

UNIT-II MAGNETIC PROPERTIES OF TRANSITION METAL COMPLEXES

Types of magnetic behaviour, methods of determining magnetic susceptibility, spin only formula, L-S coupling, correlation of μ_s and μ_{eff} values, orbital contribution to magnetic moments, application of magnetic moment data for 3d metal complexes. Electronic spectra of Transition Metal Complexes.

Types of electronic transitions, selection rules for d-d transitions, spectroscopic ground states, spectro-chemical series. Orgel-energy level diagram for d^1 and d^2 states, discussion of the electronic spectrum of $[Ti(H_2O)_6]^{3+}$ complex ion.

UNIT-III ORGANOMETALLIC CHEMISTRY

Definition, nomenclature and classification of organo metallic compounds. Preparation, properties, bonding and applications of alkyls and aryls of Li, Al, Hg, Sn, & Ti, A brief account of metal-ethylenic complexes and homogeneous hydrogenation, mononuclear carbonyls and nature of bonding in metal carbonyls.

UNIT-IV BIOINORGANIC CHEMISTRY

Essential and trace elements in biological processes, metalloporphyrins with special reference to hemoglobin and myoglobin. Biological role of alkali and alkaline earth metals with special reference to Ca^{2+} , nitrogen fixation.

UNIT-V HARD AND SOFT ACIDS AND BASES (HSAB)

07 HRS.

Classification of acids and bases as hard and soft. Pearson's HSAB concept, acid-base strength and hardness and softness. Symbiosis

Silicones and Phosphazenes

Silicones and phosphazenes as examples of inorganic polymers, nature of bonding in triphosphazenes.

REFERENCE BOOKS :

- 1 Basic Inorganic Chemistry, F.A. Cotton, G. Wilkinson and P.L. Gaus, Wiley
- 2 Concise Inorganic Chemistry, J.D. Lee, ELBS.
- 3 Concepts of models of Inorganic Chemistry, B. Douglas, D. McDaniel and J. Alexander, John Wiley
- 4 Inorganic Chemistry, D.E. Shriver, P.W. Atkins and C.H. Langford, Oxford.

5. Inorganic Chemistry, W.W. Porterfield, Addison-Wesley.
6. Inorganic Chemistry, A.G. Sharp, ELBS.
7. Inorganic Chemistry, G.L. Miessler and D.A. Tarr, Prentice Hall.
8. Advanced Inorganic Chemistry, Satyas Prakash.
9. Advanced Inorganic Chemistry, Agarwal & Agarwal.
10. Advanced Inorganic Chemistry, Puri & Sharma, S. Naginchand
11. Inorganic Chemistry, Madan, S. Chand & Co.
12. Adhunik Akarbanic Rasayan, A.K. Shrivastav & P.C. Jain, Goel Pub.
13. Ucchattar Akarbanic Rasayan, Satya Prakash & G.D. Tuli, Shyamlal Prakashan
14. Ucchattar Akarbanic Rasayan, Puri & Sharma.

PAPER - II (Paper Code-0896)

ORGANIC CHEMISTRY

M.M. 33

UNIT-I A. ORGANOMETALLIC COMPOUNDS

Organomegnesium compounds : Grignard reagents-formation, structure and chemical reactions. Organozinc compounds : formation and chemical reactions. Organolithium compounds : formation and chemical reactions.

B. Organosulphur Compounds

Nomenclature, structural features, methods of formation and chemical reactions of thiols, thioethers, sulphonic acids, sulphonamides and sulphaguanidine.

Organic Synthesis via Enolates

Active methylene groupalkylation of diethylmalonate and ethyl acetoacetate. Synthesis of ethyl acetoacetate : the Claisen condensation. Keto-enol tautomerism of ethyl acetoacetate.

UNIT-II BIOMOLECULES

A. Carbohydrates :

Configuration of monosaccharides, threo and erythro diastereomers. Formation of glycosides ethers and esters Determination of ring size of monosaccharides. Cyclic structure of D(+) glucose. Structure of ribose and deoxyribose. An introduction to disaccharides (maltose, sucrose and lactose) and polysaccharides (starch and cellulose) without involving structure determination.

B. Proteins and Nucleic acids

Classification and structure of protein levels of protein structure, protein denaturation / renaturation, Constituents of amino acids Ribonucleic acids and ribonucleotides, double helical structure of DNA.

UNIT-III A. Synthetic Polymers

Addition or chain growth polymerization. Free radical vinyl polymerization, Ziegler-Natta polymerization, Condensation or Step growth polymerization, Polyesters, polyamides, phenols- formaldehyde resins, urea- formaldehyde resins, epoxy resins and polyurethanes, natural and synthetic rubbers.

B. Synthetic Dyes

Colour and constitution (Electronic Concept). Classification of Dyes. Chemistry of dyes. Chemistry and synthesis of Methyl Orange, Congo Red, Malachite Green, Crystal Violet, Phenolphthalein, fluorescein, Alizarine and Indigo.

UNIT-IV SPECTROSCOPY

A. Mass spectroscopy : mass spectrum fragmentation of functional groups.

- B. **InfraRed Spectroscopy** : IR absorption Band their position and intensity, Identification of IR spectra.
 - C. **UV-Visible Spectroscopy** : Beer Lambert's law, effect of Conjugation max Visible spectrum and colour.
 - D. Anthocyanin as natural colouring matter (Introduction only)
 - E. Application of Mass, IR, UV-Visible Spectroscopy to organic molecules.
- UNIT-V**
- A. **NMR Spectroscopy** : Introduction to NMR. Shielding and Number of signal in FMR, Chemical shift and characteristic values, spiltting of Signals and Coupling constant. Application to organic molcules.
 - B. ¹³**CMR Spectroscopy** : Principal & Application.
 - C. **Magnetic Resonance Imaging (MRI)**- Introductory idea.

REFERENCE BOOKS :

- 1 Organic Chemistry, Morrison and Boyd, Prentice-Hall
- 2 Organic Chemistry, L.G. Wade Jr., Prentice-Hall
- 3 Fundamentals of Organic Chemistry, Solomons, John Wiley
- 4 Organic Chemistry, Vol.I, II, III, S.M. Mukherjee, S.P. Singh and R.P. Kapoor, Wiley-Eastern (New-Age)
- 5 Organic Chemistry, F.A. Carey, McGraw Hill
- 6 Introduction to Organic Chemistry, Streiweisser, Heathcock and Kosover, Macmillan
- 7 Organic Chemistry, P.L. Soni
- 8 Organic Chemistry, Bahi & Bahl
- 9 Organic Chemistry, Joginder Singh
10. Carbanic Rasayan, Bashi & Bahi
11. Carbanic Rasayan, R.N. Singh, S.M.I. Gupta, M.M. Bakodia & S.K. Wadhwa
12. Carbanic Rasayan, Joginder Singh.
13. Carbanic Resayan, P.L., Soni.
14. Corbanic Rasayan, Bhagchandani, Sahitya Bhawan Publication.
15. Rasayan Vigyan, Bhatnagar, Arun Prakashan.

PAPER - III (Paper Code-0897)

PHYSICAL CHEMISTRY

M.M. 34

UNIT-I QUANTUM MECHANICS

Black body radiation, Plank's radiation law, photoelectric effect, Compton effect. DeBroglie's idea of matter waves, experimental verification Heisenberg's uncertainty principle, Sinosoidal wave equation, Operators : Hamiltonian operator, angular momentum operator, laplacian operators postulate of quantum mechanics Eigen values, Eigen function. Schrodinger time independed wave equation physical significance of ψ and ψ^2 . Applications of schrodinger wave equation : particle in one dimensional box Hydrogenation (separation into three equation's) radial wave function and angular wave function.

UNIT-II QUANTUM MECHANICS-II

Quantum mechanical approach of molecular orbit theory; basic idea criteria for forming M.O and A.O, LCAO approximation, formation of H²⁺ ion, calculation of energy levels from wave functions bonding and antibonding wave functions concept of σ and π

orbitals and their characteristics, Hybrid orbital : sp , sp^2 , sp^3 , Calculation of coefficients A_{σ} used in these hybrid orbitals.

Introduction to valence bond model of H^2 , Comparison of M.O. and V.B. model, Huckle theory, application of huckle theory to ethane propene etc.

UNIT-III SPECTROSCOPY - I

- A. Introduction, characterization of electromagnetic radiation, regions of the spectrum, representation of spectra width and intensity of spectral transition, rotational spectra of calculated diatomic molecules, energy level of rigid rotator, selection rule, determination of bond length qualitative description of non - rigid rotator isotopic effect.
- B. Vibrational spectra - Fundamental vibrational and their symmetry, vibrating diatomic molecules, energy levels of simple harmonic oscillator. Selection Rule, Pure vibrational Spectrum, determination of force constant, diatomic vibrating operator. Anharmonic Oscillator.
- C. Raman Spectra : Concept of polarizability, quantum theory of Raman spectra stokes and anti stokes lines pure rotational and vibrational Raman spectra, Application of Raman spectra stokes and anti stokes lines, pure rotational and vibrational Raman spectra, Applications of Raman spectra.

UNIT-IV SPECTROSCOPY-II

- A. Electronic Spectra : Electronic Spectra of diatomic molecule, Frank London principle, types of electronic transitions. Applications of electronic spectra.
- B. Photo-chemistry : Interaction of radiation with matter, difference between thermal and photochemical processes. Laws of photochemistry. Grothuss-Draper law, Stark-Einstein law, Jablonski diagram depicting various process occurring in the excited state, qualitative description of fluorescence, occurring in the excited state, qualitative description of fluorescence, phosphorescence, non-radiative processes (internal conversion, intersystem crossing), quantum yield photosensitized reactions energy transfer processes (simple examples).

UNIT-V A. Thermodynamics

- A. Energy referred to absolute zero, third law of thermodynamics Test of III law of thermodynamics Nerst heat theorem application and limitation of Nerst heat theorem.
- B. Physical properties and molecular structure : polarization of molecules, {Classius-Mosotti equation. orientation of dipoles in an electric field. Dipole moment, induced dipole moment, measurement of dipole moment. Temperature methods and refractivity methods. Dipole moment and molecular structure.
- C. Magnetic Properties : Paramagnetism diamagnetism, ferromagnetism. Determination of magnetic susceptibility, elucidation of molecular structure.

REFERENCE BOOKS :

1. Physical Chemistry, G.M. Barrow, International student edition, McGraw Hill
2. Basic programming with application, V.K. Jain, Tata McGraw-Hill
3. Computers & Common sense, R. Hunt & Shelly, Prentice-Hall
4. University general chemistry, C.N.R. Rao, Macmillan.
5. Physical Chemistry, R.A. Alberty, Wiley Eastern
6. The elements of Physical Chemistry, P.W. Atkins, Oxford

7. Physical Chemistry through problems, S.K. Dogra & S. Dogra, Wiley Eastern
8. Physical Chemistry, B.D. Khosla
9. Physical Chemistry, Puri & Sharma
10. Bhoutic Rasayan, Puri & Sharma
11. Bhoutic Rasayan, P.L. Soni
12. Bhoutic Rasayan, Bahl & Tuli

PAPER-IV

LABORATORY COURSE

180 Hrs.

Inorganic Chemistry

Synthesis Analysis

- (a) Preparation of Sodium trioxalato ferrate (III), $\text{Na}_3[\text{Fe}(\text{C}_2\text{O}_4)_3]$ and determination of its composition by permanganometry.
- (b) Preparation of Ni-DMG complex, $[\text{Ni}(\text{DMG})_2]$
- (c) Preparation of copper tetraammine complex, $[\text{Cu}(\text{NH}_3)_4]\text{SO}_4$.
- (d) Preparation of cis-and trans-bioxalato diaqua chromate (III) ion.

Gravimetric Analysis

Analysis of Cu as CuSCN or CuO , Ni as $\text{Ni}(\text{DMG})_2$, Ba as BaSO_4 and Fe as Fe_2O_3

Organic Chemistry

Laboratory Techniques

- A Steam Distillation
 - Napthalene from its suspension in water
 - Clove oil from cloves
 - Separation of ortho and para-nitrophenols.
- B Column Chromatography
 - Separation of fluorescein and methylene blue
 - Separation of leaf pigments from spinach leaves
 - Resolution of racemic mixture of (+,-) mandelic acid.

Qualitative Analysis

Analysis of an organic mixture containing two solid components using water, NaHCO_3 , NaOH for separation and preparation of suitable derivatives.

Synthesis of Organic Compounds

- (a) Acetylation of salicylic acid, aniline, glucose and hydroquinone. Benzoylation of aniline and phenol.
- (b) Aliphatic electrophilic substitution- Preparation of iodoform from ethanol and acetone.
- (c) Aromatic electrophilic substitution-
 - Nitration-Preparation of m-dinitrobenzene, p-nitroacetanilide
 - Halogenation- Preparation of p-bromoacetanilide, 2,4,6 tribromophenol
- (d) Diazotization/Coupling- Preparation of methyl orange and methyl red
- (e) Oxidation- Preparation of benzoic acid from toluene
- (f) Reduction- Preparation of aniline from nitrobenzene, m-nitroaniline from m-dinitrobenzene.

Physical Chemistry

Electrochemistry

- (a) To determine strength of given acid conductometrically using standard alkali solution.
- (b) To determine solubility and solubility product of a sparingly soluble electrolyte conductometrically.

- (c) To study saponification of ethyl acetate conductometrically.
- (d) Determine the ionization constant of a weak acid conductometrically.
- (e) To titrate potentiometrically the given ferrous ammonium sulphate using $\text{KMnO}_4/\text{K}_2\text{Cr}_2\text{O}_7$ as titrant and calculate the redox potential of $\text{Fe}^{2+}/\text{Fe}^{3+}$ system on the hydrogen scale.

Refractometry and Polarimetry

- (a) To verify law of refraction of mixtures (e.g. of glycerol and water) using Abbe's refractometer.
- (b) To determine the specific rotation of a given optically active compound.

Molecular Weight Determination

- (a) Determination of molecular weight of a non-volatile solute by Rast method/Beckmann freezing point method.
- (b) Determination of the apparent degree of dissociation of an electrolyte (e.g., NaCl) in aqueous solution at different concentrations by ebullioscopy.

Colorimetry

To verify Beer-Lambert law for $\text{KMnO}_4/\text{K}_2\text{Cr}_2\text{O}_7$ and determine the concentration of the given solution of the substance.

REFERENCE BOOKS :

- 1 Vogel's qualitative Analysis, revised, Svehla, Orient Longman
- 2 Standard methods of chemical analysis, W.W. Scott, The Technical Press
- 3 Experimental Organic Chemistry, Vol. I & II, P.R. Singh, D.S. Gupta and K.S. Bajpai, tata McGraw Hill.
- 4 Laboratory Manual in Organic Chemistry, R.K. Bansal, Wiley Eastern
- 5 Vogel's Text Book of Practical Organic Chemistry, B.S. Furnis, A.J. Hannaford, V. Rogers, P.W.G. Smith and A.R. Tatchel, ELBS
- 6 Experiments in general chemistry, C.N.R. Rao & U.C. Agrawal
- 7 Experiments in Physical Chemistry, R.C. Das & Behra, Tata McGraw Hill
- 8 Advanced Practical Physical Chemistry, J.B. Yadav, Goel Publishing House.

8 Hrs.

PRACTICAL EXAMINATION

M.M.50.

Five experiments are to be performed.

- 1 Inorganic - Two experiments to be performed.
Gravimetric estimation compulsory carrying 08 marks. (Manipulation 3 marks).
Anyone experiment from synthesis and analysis carrying 04 marks.
- 2 Organic-Two experiments to be performed.
Qualitative analysis of organic mixture containing two solid components.
compulsory carrying 08 marks (03 marks for each compound and two marks for separation).
One experiment from synthesis of organic compound (Single step) carrying 04 marks.
- 3 Physical-One physical experiment carrying 12 marks.
- 4 Sessional 04 marks.
- 5 Viva Voce 10 marks.

In case of Ex-Students one mark each will be added to Gravimetric analysis and Qualitative analysis of organic mixture and two marks in Physical experiment.

PHYSICS

Objectives :

Present course is aimed to provide ample knowledge of basics of Physics which are relevant to the understanding of modern trends in higher physics.

The first paper is aimed at preparing the back ground of modern physics which includes the relativistic and quantum ideas mainly concerned with atomic, molecular and nuclear physics. It constitutes an essential pre-requisite for better understanding of any branch of physics.

The second paper is mainly concerned with Solid State Physics, Solid State Devices and Electronics. This course is quite important from the applicational aspects of modern electronic devices. It also forms the basis of advance electronics including communication technology to be covered at higher level.

The experiments are based mostly on the contents of the theory papers so as to provide comprehensive insight of the subject.

Scheme of Examination :

1. There shall be two theory papers of 3 hours duration each and one practical paper of 4 hours duration. Such paper shall carry 50 marks.
2. Each theory paper will comprise of 5 units. Two questions will be in each unit and the student will have the choice to answer one out of the two.
3. Numerical problems of about 30 percent will compulsorily be asked in each theory paper.
4. In practical paper each student has to perform two experiments during examination.
5. Practical examination will be of 4 hours duration. The distribution of practical marks will be as follows.

Experiments : 15 + 15 = 30, Viva-voce :10

Internal Assessment - 10.

PAPER - I (Paper Code-0893)

RELATIVITY, QUANTUM MECHANICS, ATOMIC MOLECULAR AND NUCLEAR PHYSICS.

UNIT-I Reference systems, inertial frames, Galilean invariance and conservation laws, propagation of light, Michelson-Morley experiment, search for ether.

Postulates for the special theory of relativity, Lorentz transformations, length contraction, time dilation, velocity addition theorem, variation of mass with velocity, mass-energy equivalence, particle with zero rest mass, Compton effect.

UNIT-II Origin of the quantum theory : Failure of classical physics to explain the phenomena such as black-body spectrum, photoelectric effect.

Wave-particle duality and uncertainty principle : de Broglie's hypothesis for matter waves : the concept of wave and group velocities, evidence for diffraction & interference of particles, experimental demonstration of matter waves. Davisson and Germer's experiment.

Consequence of de Broglie's concepts, quantisation in hydrogen atom, energies of a particle in a box, wave packets.

Consequence of the uncertainty relation : gamma ray microscope, diffraction at a slit.

UNIT-III Quantum Mechanics : Schrodinger's equation. Postulatory basis of quantum mechanics, operators, expectation values, transition probabilities, applications to particle in a one- and three dimensional boxes, harmonic oscillator in one dimension, reflection at a step potential, transmission across a potential barrier.

Hydrogen atom : natural occurrence of n, l and m quantum numbers, the related physical quantities.

UNIT-IV Spectra of hydrogen, deuterium and alkali atoms spectral terms, doublet fine structure, screening constants for alkali spectra for s,p, d and f states, selection rules.

Discrete set of electronic energies of molecules, quantisation of vibrational and rotational energies, determination of internuclear distance, pure rotational and rotation vibration spectra. Dissociation limit for the ground and other electronic states, transition rules for pure vibration and electronic vibration spectra.

Raman effect, Stokes and anti-Stokes lines, complimentary character of Raman and infrared spectra, experimental arrangements for Raman spectroscopy.

UNIT-V Interaction of charged particles and neutrons with matter, working of nuclear detectors, G-M counter, proportional counter and scintillation counter, cloud chambers, spark chamber, emulsions.

Structure of nuclei, basic properties (Z , A , μ , Q and binding energy), deuteron binding energy, p-p and n-p scattering and general concepts of nuclear forces, Beta decay, range of alpha particle Geiger-Nuttall law. Gamow's explanation of beta decay, alpha decay and continuous and discrete spectra.

Nuclear reactions, channels, compound nucleus, direct reaction (concepts). Shell model & liquid drop model, fission and fusion (concepts), energy production in stars by p-p and carbon cycles (concepts).

TEXT AND REFERENCE BOOKS :

1. H.S. Mani and G.K. Metha : "Introduction to Modern Physics" (Affiliated East-West Press, 1989)
2. A Beiser, "Prospective of Modern Physics"
3. H.E. White, "Introduction to Atomic Physics"
4. Barrow, "Introduction to Molecular Physics!"
5. R.P. Feynman, R.B. Leighton and M Sands, "The Feynman Lectures on Physics", Vol.III (B.I. Publications, Bombay, Delhi, Calcutta, Madras).
6. T.A. Littlefield and N Thorley, "Atomic and Nuclear Physics" (Engineering Language Book Society)
7. H.A. Enge, "Introduction to Nuclear Physics", (Addison-Wesley)
8. Eisenberg and Resnik, "Quantum Physics of Atoms, Molecules, Solids, Nuclei and Particles" (John Wiley)
9. D.P. Khandelwal, "Optics and Atomic Physics", (Himalaya Publishing House, Bombay, 1988).

PAPER-II (Paper Code-0894)

SOLID STATE PHYSICS, SOLID STATE DEVICES AND ELECTRONICS

- UNIT-I** Amorphous and crystalline solids, Elements of symmetry, seven crystal system, Cubic lattices, Crystal planes, Miller indices, Laue's equation for X-ray diffraction, Bragg's Law. Bonding in solids, classification. Cohesive energy of solid. Madelung constant, evaluation of Parameters. Specific heat of solids, classical theory (Dulong-Petit's law). Einstein and Debye theories. Vibrational modes of one dimensional monoatomic lattice, Dispersion relation, Brillouin Zone.
- UNIT-II** Free electron model of a metal, Solution of one dimensional Schrodinger equation in a constant potential. Density of states. Fermi Energy, Energy bands in a solid (Kronig-Penny model without mathematical details). Metals, Insulator and Semiconductors. Hall effect. Dia, Para and Ferromagnetism. Langevin's theory of dia and para-magnetism. Curie-Weiss's Law. Qualitative description of Ferromagnetism (Magnetic domains), B-H curve and Hysteresis loss.
- UNIT-III** Intrinsic semiconductors, carrier concentration in thermal equilibrium, Fermi level, Impurity semiconductor, donor and acceptor levels, Diode equation, junctions, junction breakdown, Depletion width and junction capacitance, abrupt junction, Tunnel diode, Zener diode. Light emitting diode, solar cell, Bipolar transistors, pnp and npn transistors, characteristics of transistors, different configurations, current amplification factor, FET.
- UNIT-IV** Half and full wave rectifier, rectifier efficiency ripple factor, Bridge rectifier, Filters, Inductor filter, T and N filters, Zener diode, regulated power supply. Applications of transistors. Bipolar Transistor as amplifier. Single stage and CE small signal amplifiers, Emitter followers, Transistor as power amplifier, Transistor as oscillator, Wein-Bridge Oscillator and Hartley oscillator.
- UNIT-V** Introduction to computer organisation, time sharing and multi programming systems, window based word processing packages, MS Word. Introduction to C programming and application to simple problems of arranging numbers in ascending / descending orders : sorting a given data in an array, solution of simultaneous equation.

BOOKS RECOMMENDED :

1. Introduction to solid state physics : C.Kittel
2. Solid State Physics : A.J. Dekkar
3. Electronic Circuits : Mottershead
4. Electronic Circuits : Millman and Halkias
5. Semiconductor Devices : S.M. Sze
6. Computer fundamental : balaguara Swami

PRACTICALS

MINIMUM 16 (Sixteen) Out of the following or similar experiment of equal standard :

1. Determination of Planck's constant
2. Determination of e/m by using Thomson's tube
3. Determination of e by Millikan's method
4. Study of spectra of hydrogen and deuterium (Rydberg constant and ratio of masses of electron proton)
5. Absorption spectrum of iodine vapour
6. Study of alkali or alkaline earth spectra using a concave gra's
7. Study of Zeeman effect for determination of Lande g -factor.
8. Analysis of a given band spectrum.
9. Study of Raman spectrum using laser as an excitation source.
10. Study of absorption of alpha and beta rays.
11. Study of statistics in radioactive measurement.
12. Coniometric study of crystal faces.
13. Determination of dielectric constant
14. Hysteresis curve of transformer core
15. Hall-probe method for measurement of magnetic field
16. Specific resistance and energy gap of a semiconductor
17. Characteristics of transistor
18. Characteristics of a tunnel diode
19. Study of voltage regulation system
20. Study of a regulated power supply
21. Study of lissajous figures using a CRO
22. Study of VTVM
23. Study of RC and TC coupled amplifiers
24. Study of AF and RF oscillators
25. Find roots of $f(x)=0$ by using Newton-Raphson method
26. Find roots of $F(x)=0$ by using secant method
27. Integration by Simpson rule
28. To find the value of V at
31. String manipulations
32. Towers of Honoi (Nonrecursive)
33. Finding first four perfect numbers
34. Quadratic interpolation using Newton's forward-difference fomula of degree two.

TEXT AND REFERENCE BOOKS :

1. B.G. Strechman ; "Solid State Electronic Devices". II Edition (Prentice-Hall of India, New Delhi, 1986)
2. W.D. Stanley ; "Electronic Devices, Circuits and Applications" (Prentice Hall, New Jersey, USA, 1988)
3. S. Lipschutz and A Poe ; "Schaum's Outline of Theory and Problems of Programming with Fortran" (McGraw-Hill Book Co. Singapore, 1986)
4. C Dixon ; "Numerical Analysis"

MATHEMATIS

There shall be three theory papers. Two compulsory and one optional Each paper carrying 50 marks is divided into five units and each unit carry equal marks.

PAPER - I (Paper Code-0898)

ANALYSIS

REAL ANALYSIS

UNIT-I Series of arbitrary terms. Convergence, divergence and Oscillation. Abel's and Dirichlet's test. Multiplication of series. Double series.

Partial derivation and differentiability of real-valued functions of two variables. Schwarz and Young's theorem. Implicit function theorem.

Fourier series. Fourier expansion of piecewise monotonic functions.

UNIT-II Riemann integral. Integrability of continuous and monotonic functions. The fundamental theorem of integral calculus. Mean value theorems of integral calculus.

Improper integrals and their convergence, Comparison tests. Abel's and Dirichlet's tests. Frullani's integral. Integral as a function of a parameter. Continuity, derivability and integrability of an integral of a function of a parameter.

COMPLEX ANALYSIS

UNIT-III Complex numbers as ordered pairs. Geometric representation of Complex numbers. Stereographic projection.

Continuity and differentiability of Complex functions. Analytic functions. Cauchy-Riemann equations. Harmonic functions.

Elementary functions. Mapping by elementary functions.

Mobius transformations. Fixedpoints, Cross ratio. Inverse points and critical mappings. Conformal mappings.

METRIC SPACES

UNIT-IV Definition and examples of metric spaces. Neighbourhoods, Limit points, Interior points, Open and closed sets, Closure and interior. Boundary points, Sub-space of a metric space. Cauchy sequences, Completeness, Cantor's intersection theorem. Contraction principle, Construction of real numbers as the completion of the incomplete metric space of rationals. Real numbers as a complete ordered field.

UNIT-V Dense subsets. Baire Category theorem. Separable, second countable and first countable spaces. Continuous functions. Extension theorem. Uniform continuity, Isometry and homeomorphism. Equivalent metrics. Compactness, Sequential compactness. Totally bounded spaces. Finite intersection property. Continuous functions and compact sets, Connectedness, Components, Continuous functions and connected sets.

REFERENCES :

1. T.M. Apostol, Mathematical Analysis, Narosa Publishing House, New Delhi, 1985.
2. R.R. Goldberg, Real Analysis, Oxford & IBH publishing Co., New Delhi, 1970.
3. S. Lang, Undergraduate Analysis, Springer-Verlag, New York, 1983.
4. D. Somasundaram and B. Choudhary, A First Course in Mathematical Analysis, Narosa Publishing House, New Delhi, 1997.
5. Shanti Narayan, A Course of Mathematical Analysis, S. Chand & Co. New Delhi.

6. P.K. Jain and S.K. Kaushik, An introduction to Real Analysis, S. Chand & Co., New Delhi, 2000.
7. R.v. Churchill & J.W. Brown, Complex Variables and Applications, 5th Edition, McGraw-Hill, New York, 1990.
8. Mark J. Ablowitz & A.S. Fokas, Complex Variables : Introduction and Applications, Cambridge University Press, South Asian Edition, 1998.
9. Shanti Narayan, Theory of Functions of a Complex Variable, S. Chand & Co., New Delhi.
10. E.t. Copson, Metric Spaces, Cambridge University Press, 1968.
11. P.K. Jain and K. Ahmad, Metric Spaces, Narosa Publishing House, New Delhi, 1996.
12. G.F. Simmons, Introduction to Topology and Modern Analysis, McGraw-Hill, 1963.

PART - II (Paper Code-0899)

ABSTRACT ALGEBRA

- UNIT-I** Group-Automorphisms, inner automorphism. Automorphism groups and their computations, Conjugacy relation, Normaliser, Counting principle and the class equation of a finite group. Center for Group of prime-order, Abelianizing of a group and its universal property. Sylow's theorems, Sylow subgroup, Structure theorem for finite Abelian groups.
- UNIT-II** Ring theory-Ring homomorphism. Ideals and Quotient Rings. Field of Quotients of an Integral Domain, Euclidean Rings, Polynomial Rings, Polynomials over the Rational Field. The Eisenstein Criterion, Polynomial Rings over Commutative Rings, Unique factorization domain. R unique factorisation domain implies so is $R[x_1, x_2, \dots, x_n]$ Modules, Submodules, Quotient modules, Homomorphism and Isomorphism theorems.
- UNIT-III** Definition and examples of vector spaces. Subspaces. Sum and direct sum of subspaces, Linear span. Linear dependence, independence and their basic properties. Basis. Finite dimensional vector spaces. Existence theorem for bases. Invariance of the number of elements of a basis set. Dimension. Existence of complementary subspace of a subspace of a finite dimensional vector space. Dimension of sums of subspaces. Quotient space and its dimension.
- UNIT-IV** Linear transformations and their representation as matrices. The Algebra of linear transformations. The rank nullity theorem. Change of basis. Dual space. Bidual space and natural isomorphism. Adjoint of a linear transformation. Eigenvalues and eigenvectors of a linear transformation. Diagonalisation. Annihilator of a subspace. Bilinear, Quadratic and Hermitian forms.
- UNIT-V** Inner Product Spaces-Cauchy-Schwarz inequality. Orthogonal vectors. Orthogonal Complements. Orthonormal sets and bases. Bessel's inequality for finite dimensional spaces. Gram-Schmidt Orthogonalization process.

REFERENCES :

1. I.N. Herstein, Topics in Algebra, Wiley Eastern Ltd., New Delhi, 1975.
2. N. Jacobson, Basic Algebra, Vols. I & II. W.H. Freeman, 1980 (also published by Hindustan Publishing Company).
3. Shanti Narayan, A Text Book of Modern Abstract Algebra, S.Chand & Co. New Delhi.
4. K.B. Datta, Matrix and Linear Algebra, Prentice Hall of India Pvt. Ltd., New Delhi, 2000.
5. P.B. Bhattacharya, S.K. Jain and S.R. Nagpal, Basic Abstract Algebra (2nd Edition) Cambridge University Press, Indian Edition, 1997.

6. K. Hoffman and R. Kunze, Linear Algebra, 2nd Edition, Prentice Hall. Englewood Cliffs, New Jersey, 1971.
7. S.K. Jain, A. Gunawardena & P.B. Bhattacharya, Basic Linear Algebra with MATLAB. Key College Publishing (Springer-Verlag) 2001.
8. S. Kumaresan, Linear Algebra, A Geometric Approach, Prentice-Hall of India, 2000.
9. Vivek Sahai and Vikas Bist, Algebra, Narosa Publishing House, 1997.
10. I.S. Luther and I.B.S. Passi, Algebra, Vol. I-Groups, Vol. II-Rings. Narosa Publishing House (Vol. I-1996, Vol. II-1999)
11. D.S. Malik, J.N. Mordeson, and M.K. Sen, Fundamentals of Abstract Algebra, McGraw-Hill International Edition, 1997.

PAPER - III - (OPTIONAL)

(I) PRINCIPLES OF COMPUTER SCIENCE (Paper Code-0900)

- UNIT-I Data Storage** - Storage of bits. Main Memory. Mass Storage. Coding Information of Storage. The Binary System. Storing integers, storing fractions, communication errors.
Data Manipulation - The Central Processing Unit. The Stored-Program Concept. Programme Execution. Other Architectures. Arithmetic/Logic Instructions. Computer-Peripheral Communication.
- UNIT-II Operating System and Networks** - The Evolution of Operating System. Operating System Architecture. Coordinating the Machine's Activities. Handling Competition Among Process. Networks. Networks Protocol.
Software Engineering - The Software Engineering Discipline. The Software Life Cycle. Modularity. Development Tools and Techniques. Documentation. Software Ownership and Liability.
- UNIT-III Algorithms** - The Concept of an Algorithm, Algorithm Representation. Algorithm Discovery. Iterative Structures. Recursive Structures. Efficiency and Correctness. (Algorithms to be implemented in C++)
Programming Languages - Historical Perspective. Traditional Programming Concepts, Program Units. Language Implementation. Parallel Computing. Declarative Computing.
- UNIT-IV Data Structures** - Arrays. Lists. Stacks. Queues. Trees. Customised Data Types. Object Oriented Programming.
File Structure - Sequential Files. Text Files. Indexed Files. Hashed Files. The Role of The Operating System.
Database Structure - General Issues. The Layered Approach to Database Implementation. The Relational Model. Object-Oriented Database. Maintaining Database Integrity. E-R models.
- UNIT-V Artificial Intelligence** - Some Philosophical Issues. Image Analysis. Reasoning, Control System Activities. Using Heuristics. Artificial Neural Networks. Application of Artificial Intelligence.
Theory of Computation - Turing Machines. Computable functions. A Non computable Function. Complexity and its Measures. Problem Classification.

REFERENCES :

1. J. Glen Brookshear, Computer Science : An Overview, Addison-Wesley.
2. Stanley B. Lippman, Josee Lojoie, C++ Primer (3rd Edition), Addison-Wesley.

PAPER - III - (OPTIONAL)

(II) DISCRETE MATHEMATICS (Paper Code-0901)

- UNIT-I Sets and Propositions** - Cardinality. Mathematical Induction, Principle of Inclusion and exclusion.
Computability and Formal Languages - Ordered Sets. Languages. Phrase Structure Grammars. Types of Grammars and Languages. Permutations. Combinations and Discrete Probability.
- UNIT-II Relations and Functions** - Binary Relations, Equivalence Relations and Partitions. Partial Order Relations and Lattices. Chains and Antichains. Pigeon Hole Principle.
Graphs and Planar Graphs - Basic Terminology. Multigraphs. Weighted Graphs. Paths and Circuits. Shortest Paths. Eulerian Paths and Circuits. Travelling Salesman Problem. Planner Graphs.
TREES.
- UNIT-III Finite State Machines** - Equivalent Machines. Finite State Machines as Language Recognizers. Analysis of Algorithms - Time Complexity. Complexity of Problems. Discrete Numeric Functions and Generating Functions.
- UNIT-IV Recurrence Relations and Recursive Algorithms** - Linear Recurrence Relations with Constant Coefficients. Homogeneous Solutions. Particular Solution. Total Solution. Solution by the Method of Generating Functions. Brief review of Groups and Rings.
- UNIT-V Boolean Algebras** - Lattices and Algebraic Structures. Duality, Distributive and Complemented Lattices. Boolean Lattices and Boolean Algebras. Boolean Functions and Expressions. Propositional Calculus. Design and Implementation of Digital Networks. Switching Circuits.

REFERENCES :

C.L. Liu, Elements of Discrete Mathematics, (Second Edition), McGraw Hill, International Edition, Computer Science Series, 1986.

PAPER - III - (OPTIONAL)

(III) APPLICATION OF MATHEMATICS IN FINANCE AND INSURANCE

(Paper Code-0902)

Application of Mathematics in Finance :

- UNIT-I Financial Management** - An overview. Nature and Scope of Financial Management. Goals of Financial Management and main decisions of financial management. Difference between risk, speculation and gambling.
Time value of Money-Interest rate and discount rate. Present value and future value discrete case as well as continuous compounding case. Annuities and its kinds.
- UNIT-II** Meaning of return. Return as Internal Rate of Return (IRR). Numerical Methods like Newton Raphson Method to calculate IRR. Measurement of returns under uncertainty situations. Meaning of risk. Difference between risk and uncertainty. Types of risks. Measurement of risk. Calculation of security and Portfolio Risk and Return-Markowitz Model. Sharpe's Single Index Model Systematic Risk and Unsystematic Risk.
- UNIT-III** Taylor series and Bond Valuation. Calculation of Duration and Convexity of bonds. Financial Derivatives - Futures. Forward. Swaps and Options. Call and Put Option. Call and Put Parity Theorem. Pricing of contingent claims through Arbitrage and Arbitrage Theorem.

Application of Mathematics in Insurance

UNIT-IV Insurance Fundamentals - Insurance defined. Meaning of loss. Chances of loss, peril, hazard, and proximate cause in insurance. Costs and benefits of insurance to the society and branches of insurance-life insurance and various types of general insurance. Insurable loss exposures-feature of a loss that is ideal for insurance. Life Insurance Mathematics - Construction of Mortality Tables. Computation of Premium of Life Insurance for a fixed duration and for the whole life.

UNIT-V Determination of claims for General Insurance - Using Poisson Distribution and Negative Binomial Distribution-the Polya Case.

Determination of the amount of Claims in General Insurance - Compound Aggregate claim model and its properties, and claims of reinsurance. Calculation of a compound claim density function. F-recursive and approximate formulae for F.

REFERENCES :

1. Aswath Damodaran, Corporate Finance - Theory and Practice, John Wiley & Sons Inc.
2. John C. Hull, Options, Futures, and Other Derivatives, Prentice-Hall of Indian Private Limited.
3. Sheldon M. Ross, An Introduction to Mathematical Finance, Cambridge University Press.
4. Mark S. Dorfman, Introduction to Risk Management and Insurance, Prentice Hall, Englewood Cliffs, New Jersey.
5. C.D. Daykin, T. Pentikainen and M. Pesonen, Practical Risk Theory for Actuaries, Chapman & Hall.

PAPER - III - (OPTIONAL)

Theory component will have maximum marks 30.

Practical component will have maximum marks 20.

(IV) PROGRAMMING IN C AND NUMERICAL ANALYSIS (Theory & Practical) (Paper Code-0903)

UNIT-I Programmer's model of a computer. Algorithms. Flow Charts. Data Types. Arithmetic and input/output instructions. Decisions control structures. Decision statements. Logical and Conditional operators. Loop. Case control structures. Functions. Recursions. Preprocessors. Arrays. Puppeting of strings. Structures. Pointers. File formatting.

Numerical Analysis

UNIT-II Solution of Equations : Bisection, Secant, Regula Falsi, Newton's Method, Roots of Polynomials : Interpolation : Lagrange and Hermite Interpolation, Divided Differences, Difference Schemes, Interpolation Formulas using Differences. Numerical Differentiation. Numerical Quadrature : Newton-Cote's Formulas. Gauss Quadrature Formulas, Chebychev's Formulas.

UNIT-III Linear Equations : Direct Methods for Solving. Systems of Linear Equations (Gauss Elimination, LU Decomposition, Cholesky Decomposition), Iterative Methods (Jacobi, Gauss-Seidel, Relaxation Methods).

The Algebraic Eigenvalue problem : Jacobi's Method, Givens' Method, Householder's Method, Power Method, QR Method, Lanezos' Method.

UNIT-IV Ordinary Differential Equations : Euler Method, Single-step Methods, Runge-Kutta's Method, Multi-step Methods, Milne-Simpson Method, Methods Based on Numerical

Integration, Methods Based on Numerical Differentiation, Boundary Value Problems, Eigenvalue Problems.

Approximation : Different Types of Approximation, Least Square Polynomial Approximation, Polynomial Approximation using Orthogonal Polynomials, Approximation with Trigonometric Functions, Exponential Functions, Chebychev Polynomials, Rational Functions.

Unit-V Monte Carlo Methods Random number generation, congruential generators, statistical tests of pseudo-random numbers.

Random variate generation, inverse transform method, composition method, acceptance-rejection method, generation of exponential, normal variates, binomial and Poisson variates.

Monte Carlo integration, hit or miss Monte Carlo integration, Monte Carlo integration for improper integrals, error analysis for Monte Carlo integration.

REFERENCES :

1. Henry Mullish & Herbert L. Cooper, Spirit of C : An Introduction to Modern Programming, Jaico Publishers, Bombay.
2. B.W. Kernighan and D.M. Ritchie. The C Programming Language 2nd Edition, (ANSI features) Prentice Hall, 1989.
3. Peter A. Darnel and Philip E. Margolis, C : A Software Engineering Approach, Narosa Publishing House, 1993.
4. Robert C. Hutcheson and Steven B. Just, Programming using C Language, McGraw Hill, 1988.
5. Les Hancock and Morris Krieger, The C Primer, McGraw Hill, 1988.
6. V. Rajaraman, Programming in C, Prentice Hall of India, 1994.
7. Byron S. Gottfried, Theory and Problems of Programming with C, Tata McGraw-Hill Publishing Co. Ltd., 1998.
8. C.E. Froberg, Introduction to Numerical Analysis, (Second Edition), Addison-Wesley, 1979.
9. James B. Scarborough, Numerical Mathematical Analysis, Oxford and IBH Publishing Co. Pvt. Ltd. 1966.
10. Melvin J. Maron, Numerical Analysis A Practical Approach, Macmillan publishing Co., Inc. New York, 1982.
11. M.K. Jain, S.R.K. Iyengar, R.K. Jain, Numerical Methods Problems and Solutions, New Age International (P) Ltd., 1996.
12. M.K. Jain, S.R.K. Iyengar, R.K. Jain, Numerical Methods for Scientific and Engineering Computation, New Age International (P) Ltd., 1999.
13. R.Y. Rubinstein, Simulation and the Monte Carlo Methods, John Wiley, 1981.
14. D.J. Yakowitz Computational Probability and Simulation, Addison-Wesley, 1977.

PAPER - III - (OPTIONAL)

(IV) PRACTICAL

PROGRAMMING IN C AND NUMERICAL ANALYSIS

LIST OF PRACTICAL TO BE CONDUCTED...

1. Write a program in C to find out the largest number of three integer numbers.
2. Write a program in C to accept monthly salary from the user, find and display income tax with the help of following rules :

- | | |
|----------------|-----------------------|
| Monthly Salary | Income Tax |
| 9000 or more | 40% of monthly salary |
| 7500 or more | 30% of monthly salary |
| 7499 or less | 20% of monthly salary |
3. Write a program in C that reads a year and determine whether it is a leap year or not.
 4. Write a program in C to calculate and print the first n terms of fibonacci series using looping statement.
 5. Write a program in C that reads in a number and single digit. It determines whether the first number contains the digit or not.
 6. Write a program in C to computes the roots of a quadratic equation using case statement.
 7. Write a program in C to find out the largest number of four numbers using function.
 8. Write a program in C to find the sum of all the digits of a given number using recursion.
 9. Write a program in C to calculate the factorial of a given number using recursion.
 10. Write a program in C to calculate and print the multiplication of given 2D matrices.
 11. Write a program in C to check that whether given string palindrome or not.
 12. Write a C function `seriesum ()` to calculate the sum of series :
 $1+X+1/2! X^2+1/3! X^3+..... 1/n! X^n$
 13. Write a program in C to determine the grade of all students in the class using Structure. Where structure having following members - name, age, roll, sub 1, sub2, sub3, sub4 and total.
 14. Write a program in C to copy one string to another using pointers. (Without using standard library functions).
 15. Write a program in C to store the data of five students permanently in a data file using file handling.

PAPER - III - (OPTIONAL)

(V) MATHEMATICAL MODELLING (Paper Code-0904)

The Process of Applied mathematics.

- UNIT-I** Setting up first-order differential equations - Qualitative solution sketching. Difference and differential equation growth models.
- UNIT-II** Single-species population models. Population growth-An age structure model. The spread of Technological innovation.
- UNIT-III** Higher-order linear models- A model for the detection of diabetes. Combat modes. Traffic models - Car-following models. Equilibrium speed distributions.
- UNIT-IV** Nonlinear population growth models. Prey-Predator models. Epidemic growth models. Models from political science - Proportional representation-cumulative voting, comparison voting.
- UNIT-V** Applications in Ecological and Environmental subject areas- Urban waste water management planning.

REFERENCES :

- 1 Differential equation models, Eds. Martin Braun, C.S. Coleman, D.A. Drew.
 - 2 Political and Related Models, Steven. J. Brams, W.F. Lucas, P.D. Straffin (Eds.)
 - 3 Discrete and System models, W.F. Lucas, F.S. Roberts, R.M. Thrall.
 - 4 Life Science Models, H.M. Roberts & M. Thompson.
- All volumes published as modules in applied Mathematics, Springer-Verlag, 1982.
- 5 Mathematical Modelling by J.N. Kapur, New Age International, New Delhi.

BOTANY

PAPER-I (Paper Code-0915)

PLANT PHYSIOLOGY, BIOCHEMISTRY AND BIOTECHNOLOGY

M.M. : 50

- UNIT-I** Plant-water relations : Importance of water to plant life ; physical properties of water; diffusion and osmosis; absorption, transport of water and transpiration ; physiology of stomata.
Mineral nutrition : Essential macro and micro-elements and their role ; mineral uptake; deficiency and toxicity symptoms.
- UNIT-II** Transport of organic substances : Mechanism of phloem transport ; source-sink relationship ; factors affecting translocation.
Basic of enzymology : Discovery and nomenclature ; characteristics of enzymes ; concept of holoenzyme apoenzyme, coenzyme and cofactors ; regulation of enzyme activity, mechanism of action.
Photosynthesis : Significance ; historical aspects ; photosynthetic pigments ; action spectra and enhancement effects ; concept of two photosystems; Z-scheme ; photo-phosphorylation ; Calvin cycle ; C4 pathway ; CAM plants ; photorespiration.
- UNIT-III** Respiration : ATP - the biological energy currency ; aerobic and anaerobic respiration; Kreb's cycle, electron transport mechanism (chemi-osmotic theory) ; redox potential; oxidative phosphorylation ; pentose phosphate pathway.
Nitrogen and lipid metabolism : Biology of nitrogen fixation ;importance of nitrate reductase and its regulations ; ammonium assimilation ; structure and function of lipids; fatty acid biosynthesis ; Beta-oxidation ; saturated and unsaturated fatty acids; storage and mobilization of fatty acids.
- UNIT-IV** Growth and development : Definitions ; phases of growth and development ; kinetics of growth, seed dormancy, seed germination and factors of their regulation ; plant movements ; the concept of photoperiodism ; physiology of flowering ; florigen concept; biological clocks ; physiology of senescence, fruit ripening ; plant hormones auxins, gibberellins, cytokinins, abscisic acid and ethylene, history of their discovery, biosynthesis and mechanism of action ; photomorphogenesis ; phytochromes and cryptochromes, their discovery, physiological role and mechanism of action.
- UNIT-IV** Genetic engineering : Tools and techniques of recombinant DNA technology ; cloning vectors ; genomic and cDNA library ; transposable elements ; techniques of gene mapping and chromosome walking.
Biotechnology : Functional definition ; basic aspects of plant tissue culture ; cellular totipotency, differentiation and morphogenesis ; biology of Agrobacterium ; vectors for gene delivery and marker genes ; salient achievements in crop biotechnology.

PAPER-II (Paper Code-0916)

ECOLOGY AND UTILIZATION OF PLANTS M.M. : 50

- UNIT-I** Plants and environment : Atmosphere (gaseous composition), water (properties of water cycle), light (global radiation, photosynthetically active radiation), temperature, soil (development, soil profiles, physico-chemical properties), and biota.
Morphological, anatomical and physiological responses of plants to water (hydrophytes and xerophytes), temperature (thermoperiodicity), light (photoperiodism, heliophytes and sciophytes) and salinity.

- UNIT-II** Community Ecology : Community characteristics, frequency, density, cover, life forms biological spectrum ; ecological succession.
Ecosystems : Structure, abiotic and biotic components ; food chain, food web, ecological pyramids, energy flow ; biogeochemical cycles of carbon, nitrogen and phosphorus.
- UNIT-III** Population ecology : Growth curves ; ecotypes ; ecads.
Biogeographical regions of India.
Vegetation types of India : Forests and grasslands.
- UNIT-IV** Utilization of Plants
Food plants : Rice, wheat, maize, potato, sugercane.
Fibres : Cotton and jute.
Vegetable oils : Groundnut, mustard and coconut
General account of sources of firewood, timber and bamboos.
- UNIT-V** Spices : General account.
Medicinal plants : General account
Beverages : Tea and coffee.
Rubber.

PRACTICAL SCHEME

M.M. 50

01. Physiology	08
02. Ecology	08
03. Utilization of Plants	05
04. Biochemistry / Biotechnology	05
05. Spotting (1-5 spots)	10
06. Project work	04
07. Viva V.	05
08. Sessional	05

50

Suggested Laboratory Exercises

- To study the permeability of plasma membrane using different concentrations of organicsolvents.
- To study the effect of temperature on permeability of plasma membrane.
- To prepare the standard curve of protein and determine the protein content in unknown samples.
- To study the enzyme activity of catalase and peroxidase as influenced by pH and temperature.
- Comparison of the rate of respiration of various plant parts.
- Separation of chloroplast pigment by solvents method.
- Determinig the osmotic potential of vacuolar sap by plsmolytic method.
- Determining the water potential of any tuber.
- Separation of amino acids in a mixtue by paper chromatography and their identification by comparison with standards.
- Bioassay of auxin, cytokinin, GA. ABA and ethylene using appropriate plant material.
- Demonstration of the technique of micropropagation by using different explants, e.g. axillary buds, shoot meristems.
- Demonstration of the technique of anther culture.
- Isolation of protoplasts from different tissues using commercially available enzymes.
- Demonstration of root and shoot formation from the apical and basal portion of stem segments in liquid medium containing different hormones.

Suggested Laboratory Exercises (Ecology)

1. To determine minimum number of quadrats required for reliable estimate of biomass in grasslands.
2. To study the frequency of herbaceous species in grassland and to compare the frequency distribution with Raunkair's Standard Frequency Diagram.
3. To estimate importance Value Index for grassland species on the basis of relative frequency, relative density and relative biomass in protected and grazed grassland.
4. To measure the vegetation cover of grassland through point frame method.
5. To measure the aboveground plant biomass in a grassland.
6. To determine Kemp's constant for dicot and monocot leaves and to estimate the leaf area index of a grassland community.
7. To determine diversity indices (richness, Simpson, Shannon-Wiener) in grazed and protected grassland.
8. To estimate bulk density and porosity of grassland and woodland soils.
9. To determine moisture content and water holding capacity of grassland and woodland soil.
10. To study the vegetation structure through profile diagram.
11. To estimate transparency, pH and temperature of different water bodies.
12. To measure dissolved oxygen content in polluted and unpolluted water samples.
13. To estimate salinity of different water samples.
14. To determine the percent leaf area injury of different leaf samples collected around polluted sites.
15. To estimate dust holding capacity of the leaves of different plant species.

PRACTICAL

Suggested Laboratory Exercises (for Utilization of Plants)

1. Food Plants : Study of the morphology, structure and simple microchemical tests of the food storing tissues in rice, wheat, maize, potato and sugarcane, Microscopic examination of starch in these plants (excepting sugarcane)
2. Fibres : Study of cotton flowers, sectioning of the cotton ovules/developing seeds to trace the origin and development of cotton fibres. Microscopic study of cotton and test for cellulose, Sectioning and staining of jute stem to show the location and development of fibres. Microscopic structure. Test for lignocellulose.
3. Vegetable oils : Study of hand sections of groundnut, mustard and coconut and staining of oil droplets by Sudan III and Sudan Black.
4. Field visits : To study sources of firewood (10 plants), timber-yielding trees (10 trees) and bamboos. A list to be prepared mentioning special features.
5. Spices : Examine black pepper, cloves, cinnamon (hand sections) and opened fruits of cardamom and describe them briefly.
6. Preparation of an illustrated inventory of 10 medicinal plants used in indigenous systems of medicine or allopathy : Write their botanical and common names, parts used and disease/disorders for which they are prescribed.
7. Beverages : Cut Sections of boiled coffee beans and tea leaves to study the characteristic structural features.
8. Rubber : Collect illustrative materials of *Hevea brasillensis* ; morphology of the plant and tapping practices, history of rubber. List the many uses of rubber.

ZOOLOGY

Paper-I (Paper Code-0917)

Ecology, Environmental-biology ; Toxicology ; Microbiology and Medical Zoology.

2 Attempting one question from each unit will be compulsory. 100% choice be given.

UNIT-I (ECOLOGY)

- 1 Aims and scopes of Ecology.
- 2 Major ecosystems of the world-Brief introduction
- 3 Population- Characteristics and regulation of densities.
- 4 Communities and Ecosystems.
- 5 Biogeochemical cycles
- 6 Air and water pollution
- 7 Ecological succession

UNIT-II (ENVIRONMENTAL BIOLOGY)

- 1 Laws of limiting factors
- 2 Food chain in a freshwater ecosystem.
- 3 Energy flow in ecosystem-Trophic levels
- 4 Conservation of Natural resources
- 5 Environmental impact Assessment

UNIT-III (TOXICOLOGY)

- 1 Definition of Toxicity
- 2 Classification of toxicants
- 3 Principle of systematic toxicology
- 4 Toxic agents and their action- Metallic and inorganic agents
- 5 Animal poisons - Snake-venom, Scorpion and bee poisoning
- 6 Food poisoning

UNIT-IV (MICROBIOLOGY)

- 1 General and Applied microbiology.
- 2 Microbiology of Domestic water and sewage
- 3 Microbiology of milk and milk products
- 4 Industrial microbiology

UNIT-V (MEDICAL MICROBIOLOGY)

- 1 Brief introduction to pathogenic micro-organisms, Rickettsia, Spirochaetes and Bacteria.
- 2 Brief account of life-history and pathogenicity of the following pathogens with reference to man ; Prophylaxis and treatment -
 - (a) Pathogenic Protozoans - Entamoeba, Trypanosoma, and Giardia
 - (b) Pathogenic helminths - Schistosoma
 - (c) Nematode Pathogenic parasites of man
- 3 Vector insects

PAPER-II

(Paper Code-0918)

(GENETIC'S, CELL PHYSIOLOGY, BIOCHEMISTRY, BIOTECHNOLOGY AND BIOTECHNIQUES)

Note : Attempting one question from each unit will be compulsory, 100% choice be given.

UNIT-I (GENETIC'S)

1. Linkage and Linkage maps
2. Varieties of gene expression - Multiple alleles ; lithogenesis ; Pleiotropic genes; gene interaction ; epistasis.
3. Sexchromosome systems, and sex-linkage.
4. Mutation and chromosomal alterations ; meiotic consequences.
5. Human genetics - chromosomal and single gene disorders (somatic cell genetics)

UNIT-II (CELL PHYSIOLOGY)

1. General idea about pH and Buffer.
2. Transport across membrane - cell membrane; Mitochondria and Endoplasmic reticulum.
3. Active transport and its mechanism; Active transport in Mitochondria and Endoplasmic reticulum.
4. Hydrolytic enzymes - Their chemical nature, Activation and specificity.

UNIT-III (BIOCHEMISTRY)

1. Amino acids and Peptides - Basic structure and biological function.
2. Carbohydrate and its metabolism - Glycogenesis; Gluconeogenesis; glycolysis, Glycogenolysis; Cofi-cycle.
3. Lipid metabolism - Oxidation of glycerol; oxidation of fatty acid.
4. Protein metabolism - Deamination, Transamination, Transmethylation; Biosynthesis of Protein;

UNIT-IV (BIOTECHNOLOGY)

1. Biotechnology - Scope and importance.
2. Recombinant DNA and Gene cloning.
3. Cloned genes and other tools of biotechnology.
4. Applications of biotechnology in (i) Pharmaceutical industry, and (ii) Food processing industry.

UNIT-V (BIOTECHNIQUE)

Principles and techniques about the following

1. pH meter
2. Colorimeter
3. Microscopy-Light microscopes, Phase contrast and Electron microscopes.
4. Centrifugation
5. Separation of biomolecules by chromatography, and Electrophoresis
6. Histrochemical methods for determination of Protein, Lipids, and carbohydrate

PRACTICAL WORK

The Practical work in general shall be based on syllabus prescribed in theory.
The candidates will be required to show knowledge of the following :

1. Estimation of population density, Percentage frequency, Relative density.
2. Analysis of Producers and consumers in grassland.
3. Detection of gram-negative and gram-positive bacteria.
4. Blood group detection (A,B, AB & O).
6. R.B.C., W.B.C. count.
6. Blood coagulation time.
7. Preparation of Hematin crystals from blood of rat.
8. Observation of Drosophila, wild and mutant.
9. Chromatography-Paper or gel.
10. Colorimetric estimation of hemoglobin.
11. Mitosis in onion root tip.
12. Biochemical detection of Carbohydrate, Protein and Lipid.
13. Study of Permanent slides of Parasites, based on theory paper.
14. Working Principles of pH meter, Colorimeter, centrifuge and microscopes.

SCHEDULE FOR PRACTICAL EXAMINATION

Duration : 4 Hrs.

Max Marks : 50

- | | |
|--|----------|
| 1. Haematological Experiment :
(R.B.Cs./W.B.Cs. Counting/Blood group detection) | 08 marks |
| 2. Ecological Experiment :
(Estimation of Population Density/Frequency/relative Density) | 06 marks |
| 3. Staining of Gram +ve and Gram -ve Bacteria/cytological
experiment : Mitosis in onion root tip | 05 marks |
| 4. Biochemical Experiment :
(biochemical detection of carbohydrate/protein lipid) | 06 marks |
| 5. Chromatography | 05 marks |
| 6. Spotting :
Study of permanent slides of Parasites : 3
Comments on working Principles of pH meter /
Colorimeter / centrifuge and Microscope : | 10 marks |
| 7. Viva Voce | 05 marks |
| 8. Sessional : | 05 marks |

MICRO-BIOLOGY
SCHEME OF PRACTICAL

Duration : 4 Hrs.

Max Marks : 50

1. Characterization and Identification of micro-organism from any given source	15
2. Biochemical identification of some biodegraded organic molecules	10
3. Spots (1 to 5)	10
4. Viva voce	05
5. Sessional	10
Total - 50	

(PRACTICAL SYLLABUS)

MOLECULAR BIOLOGY AND GENETIC ENGINEERING

Characterization of genetic markers of known bacterial strains.
Phage growth curve.
Isolation of DNA from bacteria.
Isolation of plasmid DNA and restriction analysis.
Simple cloning using plasmid DNA as vector and transformation of competent E. coli cells.
Electrophoretic analysis of proteins.
Isolation of Bacteria from air and soil (crop fields)
Isolation of Fungi from air and soil
Study of rhizospheric & Phyllospheric microbes of some economically important plants
Biodegradation study of some organic molecules
microbial assessment of potable water
Analysis of sewage waste
Analysis of Garbages (soild wastes)

REFERENCE :

Philipp Gorhardt, manual of Methods for general Bacteriology. ASM. 536pp.

PAPER-I (Paper Code-0923)

MOLECULAR BIOLOGY AND GENETIC ENGINEERING M.M.50

- UNIT-I** History of molecular biology, model systems, concepts of molecular biology, Early history of genetic engineering, genetic engineering concepts, ethical issue.
- UNIT-II** Mutation; spontaneous and induced, base pair change, fram shift, deletion, inversion, random duplication, insertion, useful phenotypes (auxotrophs, conditional lethal, resistance). Reversion vs suppression, Ame's test.
- UNIT-III** Function of macromolecules; early observation on the mechanism of heredity, DNA as genetic material; basic mechanism of replication, enzymes involved in replication, Enzymes involved in transcription translation, genetic code, regulation of gene expression-transcription, translation and control of gene expression in microbes.
- UNIT-IV** DNA repair and restriction, types of repair systems, restriction modification systems, types of restriction enzymes, properties and uses, methylation.

Biology of plasmids. Bacteriophages, lytic vs lysogenic phages, single standard DNA phages, M 13, restriction modification systems, restriction enzymes.

UNIT-V Plasmid and phage vectors, restriction and ligation of vector and passenger DNA, transformation of host cells, selection vs. screening of recombinant colonies, analysis of recombinant clones, DNA sequencing, protein separation and identification methods.

TEXT BOOKS :

1. Essentials of Molecular Biology by GM Malacinski.
2. Genes IX by Benjamin Lewin
3. Molecular Biology by TA Brown.

PAPER - II (Paper Code-0924)

ENVIRONMENTAL AND MEDICAL MICROBIOLOGY

M.M.50

UNIT-I Aerobiology; definition, droplet nuclei, aerosol assessment of air quality, some important air borne diseases caused by bacteria (Diphtheria, Pneumonia, Meningitis), virus (Influenza, Chicken pox, Measels) and fungi (mycosis); their symptoms and preventive measures.

UNIT-II Soil microbiology : Physical and chemical characteristics and micro flora of various soil types, rhizosphere, phyllosphere. Brief account of microbial interactions: symbiosis, mutualism, commensalism, competition, amensalism, synergism, parasitism, and predation.

Biofertilizers - biological nitrogen fixation, nitrogenase enzyme, nif genes, symbiotic nitrogen fixation, and non-symbiotic nitrogen fixation (Azotobacter, Azospirillum), VAM-ecto-endo-ectendomycorrhizae.

UNIT-III Aquatic microbiology; ecosystem, fresh water (ponds, lakes, stream) and marine, Water zonation : upwelling, eutrophication.

Potability of water - microbial assessment of water quality.

Brief account of water borne diseases (Typhoid, Dysentery, Cholera, Hepatitis) and preventive measures.

UNIT-IV Food spoilage and food borne infections.

A brief mention about biodegradation, xenobiotics, bioaccumulation, biopesticides and deterioration.

General concept of industrial microbiology and their applications.

UNIT-V Waste Treatment : types of wastes, characterization of solid and liquid waste, waste treatment solid saccharification, gasification, composting.

Liquid waste treatment - aerobic, anaerobic primary, secondary and tertiary methods.

Useful byproducts, mushroom, fuel, fertilizer, Biodegradation of industrial waste.

REFERENCES :

1. Food Microbiology by WC Frazier and D Westhoff.
2. Agricultural Microbiology by Bhagyaraj and Rangaswamy.
3. Bioremediation by KH Baker and DS Herson.
4. Scott's Diagnostic Microbiology by EJ Baron.

**PRACTICAL FOR B.SC. PART III
(MICROBIOLOGY)**

Characterization of genetic markers of known bacterial strain
Isolation of DNA from bacteria
Isolation of plasmid DNA
Simple cloning using plasmid DNA as vector and transformation of competent E. coli
Electrophoresis of protein / DNA.
Isolation of microorganisms from air, soil and water.
Isolation of pathogenic microorganisms.
Study of rhizospheric and phyllospheric microbes from economically important plants.
Biodegradation of some organic molecules.
Microbial assessment of potable water.
Analysis of sewage waste, solid waste (garbage).
Isolation of aquatic fungi (zoosporic) by baiting technique.
Isolation of keratinophilic fungi soil by baiting technique
Demonstration of bacterial antagonism.
Microscopic observation of root colonization by VAM fungi.

SCHEME FOR PRACTICAL EXAMINATION

Time : 4 hours

M.M. : 50

1	Characterization and identification of microorganism from given source/ Isolation of plasmid DNA/Genomic DNA	15
2	Biochemical identification of some biodegraded organic molecules/ Microbial assessment of potable water/BOD/COD	10
3	Spotting (1-5)	10
4	Viva-Voce	05
5	Sessional	10
	Total	150

विषय-भू-विज्ञान
सैद्धांतिक प्रश्न पत्र- प्रथम
(पेपर कोड-0905)

पूर्णांक-50

- इकाई-1**
1. खनिज उपलब्धता के नियामक तथ्य । वैश्विक खनिज नियम एवं संसाधन ।
 2. दिक्काल में खनिज निक्षेपों का वितरण, पारम्परिक एवं गैर पारम्परिक ऊर्जा संसाधन : सूर्य-आतप, जल, वायु, उष्ण झरने, समुद्र तरंगे ।
 3. अयस्क निर्माणकारी खनिज : धात्विक एवं अधात्विक । अयस्क निर्माण की मैग्नीय सांद्रण विधि ।
 4. उष्ण जलीय-प्रक्रियायें, स्कार्न ।
 5. उपक्षय उत्पाद एवं अवशिष्ट निक्षेप । आक्सीकरण एवं सल्फाइड समृद्धि प्रक्रम ।
- इकाई-2**
1. अयस्क निर्माण की अवसादी प्रक्रिया ।
 2. प्रतिस्थापन एवं जीवाश्विक अवक्षेपण, कोलायडल निक्षेपण । लवणीजल का वाष्पोत्सर्जन ।
 3. अयस्क निर्माण की कायान्तरणी प्रक्रिया ।
 4. भू-वैज्ञानिक कालों में वैश्विक विवर्तनिकी एवं धानुनिर्मिती ।
 5. भू-वैज्ञानिक वितरण, खनिजकीय विशेषता तथा भारत में निम्न धातु निक्षेपों का वितरण लौह-मैग्नीज-क्रोमियम
- इकाई-3**
1. भू-वैज्ञानिक वितरण-खनिजकीय विशेषता एवं भारत में निम्न धातु निक्षेपों का वितरण : ताम्र-सीसा-जस्ता ।
 2. भू-वैज्ञानिक वितरण- खनिजकीय विशेषता एवं भारत में निम्न धातु निक्षेपों का वितरण: सोना-अल्युमिनियम ।
 3. भू-वैज्ञानिक वितरण- खनिजकीय विशेषता एवं भारत में निम्न अधातु निक्षेपों का वितरण : तापसह एवं उर्वरक खनिज ।
 4. भू-वैज्ञानिक वितरण- खनिजकीय विशेषता एवं भारत में निम्न अधातु निक्षेपों का वितरण : सीमेंट एवं केमिकल उद्योग में प्रयुक्त खनिज एवं वास्तुप्रास्तर ।
 5. भू-वैज्ञानिक वितरण- खनिजकीय विशेषता एवं भारत में निम्न अधातु निक्षेपों का वितरण : रत्न ।
- इकाई-4**
1. धातु सांद्रण की प्रमुख विधियाँ : ताम्र एवं मैग्नीज ।
 2. खनिज दोहन के पर्यावरणीय प्रभाव ।
 3. कोयला निक्षेपों की उत्पत्ति, परिभाषा एवं संस्तर विज्ञान ।
 4. कोल-शैलिकी के मूलभूत तथ्य । पीट, लिग्राइट, विट्टूमिनस, एंथ्रासाइट ।
 5. भारतीय कोयला निक्षेप : विशेष संदर्भ में छत्तीसगढ़ ।
- इकाई-5**
1. प्राकृतिक हाइड्रोकार्बन की उत्पत्ति, स्थानांतरण एवं स्थानबद्धता, स्रोत एवं संचयकारी
 2. आयलट्रेप के प्रकार-संरचनात्मक, स्तरविज्ञानी एवं मिश्रित ।
 3. भारत के तटीय एवं अपतटीय पेट्रोलियम निक्षेप ।
 4. रेडियोधर्मी खनिज : खनिजकीय, भू-रसायन, पूर्वेक्षण तकनीक ।
 5. भारत वर्ष में रेडियोधर्मी खनिज का वितरण ।

विषय-भू-विज्ञान
सैद्धांतिक प्रश्न पत्र-द्वितीय
(पेपर कोड-0906)

(प्राकृतिक पर्यावरण, दूर-संवेदन, भू-जल एवं खनिज-अन्वेषण)

पूर्णांक-50

- इकाई-1**
1. पर्यावरण भू-विज्ञान की अवधारणायें एवं परिभाषा ।

2. मृदानिर्माण-मृदा प्रकार ।
 3. पृथ्वी की प्राकृतिक-पारिस्थितिकी तंत्र की अवधारणायें : उनकी अंतर्क्रियाएं एवं अन्तर्सम्बन्ध ।
 4. प्राकृतिक पर्यावरण पर मानव का पर्यावरण ।
 5. नदी मार्ग का अंतरण : मार्ग अंतरण का मृदा अपरदन पर प्रभाव : भूस्खलन एवं बाढ़ ।
- इकाई-2**
1. वृहत्त बांध, जलाशय, सुरंगों आदि के निर्माण में स्थल चयन एवं पर्यावरणीय प्रभावों का अध्ययन ।
 2. हवाई-छायाचित्रों एवं उपग्रह इमेजियरी का प्रारंभिक अध्ययन ।
 3. शहरी विकास एवं वृहद्अभियांत्रिकी संरचनाओं की आयोजना में दूर-संवेदन तकनीकों का अनुप्रयोग ।
 4. फोटो जियोलाॉजिकल मानचित्रों का निर्माण ।
 5. जल चक्र ।
- इकाई-3 भूजलसंचयी शैल**
1. शैल एवं उनका वर्गीकरण
 2. जलमृतशैलों का वर्गीकरण : डारिस का नियम एवं उसकी उपयुक्ता ।
 3. भारत का भूजल-प्रदेश ।
 4. जलग्रहण प्रबंधन की अवधारणायें
 5. सतही एवं अधो सतही निष्कर्षण विधियाँ ।
- इकाई-4**
1. आर्थिक खनिजों के लिये पूर्वेक्षण विधियाँ : ड्रीलिंग, प्रतिनयन एवं आमापन
 2. खनिज पूर्वेक्षण की गुरुत्वी, विद्युतीय एवं चुम्बकीय विधियाँ ।
 3. पूर्वेक्षण की हवाई एवं भूकम्पीय विधियाँ ।
 4. पूर्वेक्षण की भू-पादपीय विधियाँ ।
 5. पूर्वेक्षण की भू-रासायनिक विधियाँ ।
- इकाई-5**
1. बोरहोललागिंग एवं विचलन सांख्यिकी ।
 2. खनिज खपत का परिवर्तनशील स्वरूप ।
 3. राष्ट्रीय खनिज नीति ।
 4. खनिज-कन्शेसन-नियम ।
 5. समुद्री खनिज संसाधन एवं तत्संबंधित नियम ।

प्रायोगिक प्रश्न पत्र

अधिकतम अंक-50

प्रयोगशाला कार्य-35 अंक

क्षेत्रीय अध्ययन-15 अंक

1. अयस्क निर्माणकारी खनिजों के भौतिक एवं प्रकाशीय गुणों का अध्ययन ।
2. भारत के मानचित्र में अयस्क निक्षेप एवं आर्थिक महत्व को खनिजों का वितरण ।
3. कोयला एवं उसके विभिन्न प्रकारों के नमूनों का स्थूलदर्शी अध्ययन ।
4. रेडियोधर्मी खनिज एवं उनके आतिथेय शैलों का स्थूलदर्शी अध्ययन ।
5. खनिज निष्कर्षण से संबंधित प्रयोगशाला अभ्यास कार्य, निक्षेप आंकलन, टनेज फेक्टर आंकलन, ड्रिलिंग आदि से संबंधित ।
6. स्टिरियोस्कोप के द्वारा ऐरियल छाया चित्रों का अध्ययन एवं विवेचना ।
7. उपग्रह इमेजियरी का अध्ययन एवं विवेचना ।

भू-वैज्ञानिक-क्षेत्रीय अध्ययन :

15 दिवसीय भू-वैज्ञानिक क्षेत्रीय अध्ययन कार्य, जिसमें संरचनात्मक दृष्टि से जटिल क्षेत्रों में भू-वैज्ञानिक मानचित्र एवं शैल नमूनों का संग्रहण तथा प्रयोगशाला कार्य एवं फील्ड रिपोर्ट का अनुलेखन ।

BOOK RECOMMENDED FOR PAPER-I

- | | |
|------------------------|--|
| Evans, A.M. 1993. | - Ore Geology and Industrial Minerals |
| Sawkins, F.J. 1984 | - Metal Deposits in relation in plate Tecto. Springer. |
| Stanton, R.L. 1972 | - Ore Petrology. Mcgraw Hill |
| Mookherjee A. 2000 | - Ore Genesis - a helistic Approach Allied Publisher |
| Chandra 2000 | - Text book of coal (Indian context) Tara book Agency, Varanashi |
| Selley, R.C.1998 | - Elements of Petroleum Geology. Academic Press |
| Torling D.H. 1981 | - Economic Geology and Geofectericks Blackwell |
| Melustry, H.E. 1962 | - Mining Geology 2nd Ed., Asia Pub. House |
| Arogya Swamy, RPN 1996 | - Courses in rining Geology IV Ed. Oxford IBH |
| Dahl Kamp F.J. 1993 | - Uranium Ore Deposits Springer |

BOOK RECOMMENDED FOR PAPER-II

- | | |
|--------------------------------------|--|
| Valdiya K.S. 1987 | Environmental Geology-Tata MacgrawHill |
| Keller, E.A. 1978 | - Environmental Geology-Bell & Hewell |
| Subramanium V. 2001 | - Textbook in Environmental Science, Narosa International |
| Bell, F.G. 1999 | - Geological Hazards, Routledge, London |
| Drury, S.A. 1987 | - Image Interpretation in Geology |
| Siegal, B.S. and Gillespie A.R.1980- | Remote Sensing in Geology, John Wiley |
| Pandey, S.N. | - Principles and Application of Photology. Wiley Eastern, New Delhi |
| Todd. D.K. 1980 | - Groundwater Hydrology, John Wiley |
| Raghunath, N.M. 1982 | - Ground Water, Wiley Eastern |
| Karanth, K.R. 1987 | - Groundwater Assessment Development and Management, Tata Macgraw Hill |
| Subramanium, V.2000 | - Water, KingstonPubl. London |
| Sharma P.V. 1986 | - Geophysical Methods in Geology Mcgraw Hill |
| Krynine, D.H. & Juddwr 1998 | - Principles of Engineering G. CBS Edition |

STATISTICS

PAPER-I

(Paper Code-0907)

APPLIED STATISTICS

- UNIT-I** Indian Applied Statistical System : Present official statistical system in India, Methods of collection of official statistics, their reliability and limitations, and the principal publications containing such statistics on the topics- population agriculture, industry, trade, price, labour and employment, transport and communications, banking and finance. (15L)
- UNIT-II** Demographic Methods : Sources of demographic data - census, register, adhoc survey, hospital records, demographic profiles of Indian census. Measurement of mortality and life tables- crude, death rates, infant mortality rates, death date by cause, standardized death rate, complete life table - its main features, mortality rate and probability of dying, use of survival tables. Measurement of fertility - crude birth rate, general fertility rate, total fertility rate, gross reproduction rate, net reproduction rate. (25L)
- UNIT-III** Economic Statistics : Index number - its definition, applications of index numbers. price relatives and quantity or volume relatives, link and chain relatives, problems involved in computation of index numbers, use of averages, simple aggregative and weighted average methods, Laspeyre's, Paasche's and Fisher's index numbers, time and factor reversal tests of index numbers. Consumer Price Index. (20L)
- UNIT-IV** Static laws of demand and supply, price elasticity of demand, analysis of income and allied size distribution - Pareto distribution, graphical test, fitting of Pareto's law, log normal distribution and its properties, Lorenz curve and estimation of elasticity from time series data. Gini's coefficient.
- UNIT-V** Time Series Analysis : Economic time series, its different components, Illustrations, additive and multiplicative models, determination of trend, growth curves, analysis of seasonal fluctuations construction of seasonal indices. (15L)

REFERENCES :

- 1 Croxton F.E. and Cowden D.J. (1969) : Applied General Statistics, Prentice Hall of India.
- 2 Goon, A.M., Gupta, M.K., Das gupta, B (1986) : Fundamentals of statistics, vol.-II, World Press, Calcutta.
- 3 Guide to Current Indian Official Statistics : Central Statistical Organization, Govt. of India, New Delhi.
- 4 Saluja M.P. () Indian Official statistical Systems, Statistical Publishing Society, Calcutta.
- 5 Srivastava, O.S. (1983) : A textbook of Demography, Vikas Publishing.

ADDITIONAL REFERENCES :

- 1 Gupta and Mukhopadhyay P.P. () Applied Statistics, Central Book Agency.
- 2 Pressat R. (1978) : Statistical Demography, Methuen and Co. Ltd.

PAPER-II

(Paper Code-0908)

STATISTICAL QUALITY CONTROL AND COMPUTATIONAL TECHNIQUES

UNIT-I Importance of statistical methods in industrial research and practice, specification of items and lot qualities corresponding to visual gauging, count and measurements, types of inspection, determination of tolerance limits. General theory of control charts, causes of variation in quality, control limits, sub-grouping, summary of out-of-control criteria, charts for attributes, np chart, p-chart, c-chart, u-chart, Charts for variables- X- and R charts, design of X and R charts versus p-charts, process capability studies.

(30L)

UNIT-II Principle of acceptance sampling- problem of lot acceptance, stipulation of good and bad lots, producer's and consumers risks, single and double sampling plans, their OC functions, concepts of AQL, LTPD, AOQL, average amount of inspection and ASN function, rectifying inspection plans, Sampling inspection plans, Indian Standards Tables Part-I (including applications), IS 2500 Part I.

(15L)

UNIT-III Computational techniques : Difference tables and methods of interpolation, Newton's and Lagrange's methods of interpolation, Divided differences, numerical differentiation and integration, Trapezoidal rule, Simpson's one-third formula, iterative solution of non-linear equations.

(15L)

UNIT-IV Linear Programming : Elementary theory of convex sets, definition of general linear programming problems (LPP), formulation problems of LPP, examples of LPP, Problems occurring in various fields, graphical and Simplex method of solving an LPP, artificial variables, duality of LPP. Transportation Problem (non-degenerate and balanced cases only), Assignment Problem.

(30L)

UNIT-V Four short notes, one from each unit. Student have to answer any two.

REFERENCES :

1. Brownless K.A. (1960) : Statistical theory and Methodology in Science and Engineering. John Wiley and Sons.
2. Grant E.L. (1964) : Statistical Quality Control, McGraw Hill.
3. Duncan A.J. (1974) : Quality Control and Industrial Statistics, Traporewala and Sons.
4. Gass S.I. (1975) : Linear Programming Methods and Applications, McGraw Hill.
5. Rajaraman, V. (1981) : Computer Oriented Numerical Methods, Prentice Hall.
6. Sastry S.S. (1987) : Introductory Methods of Numerical Analysis, Prentice Hall.
7. Taha H.A. (1989) : Operations Research : An Introduction, Macmillan Publishing Company.

ADDITIONAL REFERENCES :

1. Bowker H.A. and Liberman G.T. (1962) : Engineering Statistics, Prentice Hall.
2. Cowden D.J. (1960) : Statistical Methods in Quality Control, Asia Publishing Society.
3. Garvin W.W. (1960) : Introduction to Linear Programming, McGraw Hill.
4. Mahajan M. (2001) : Statistical Quality Control, Dhanpat Rai & Co. (P) Ltd.
5. Rao S.S. (1984) : Optimization Theory and Applications, Wiley Eastern.

6. Krishnamurthy E.V. and Sen S.K. (1976) : Computer Based Numerical Algorithms, Affiliated East-West Press.

PRACTICAL

1. Computing measures of mortality & fertility, Construction of life tables and examples involving use of life tables, Graduation of mortality rates by Gompertz curve, fitting of a logistic curve.
2. Construction of Index Numbers by Laspeyre's, Paasche's, Fisher's method.
3. Determination of trend in a time series, construction of seasonal indices.
4. Fitting of Pareto curve to income data, Lorenz curve of concentration, Estimation of price elasticity of demand from time series data.
5. Drawing of X-R, np, p and c- charts. Drawing of OC curve for single and double sampling plans for attributes, AOQ and ATI curves.
6. Construction of difference tables, use of Newton's Lagrange's methods of interpolation and divided difference formulae, numerical evaluation of integrals using Trapezoidal and Simpson's one-third formulae, solution of non-linear equation by Newton-Raphson iterative method.
7. Formulation of LPP's and their duals. Solving LPPs by graphical and simplex methods, transportation and assignment problems.

DEFENCE STUDIES

PAPER-I

PROBLEMS OF WAR AND PEACE (Paper Code-0921)

Aim : The objective of this paper is to acquaint the students about the multidimensional problems of war and peace and humanitarian laws.

Note : Question will be set from each unit, there will be only internal choice.

Unit-I U.N.O. AND WORLD PEACE

1. Organs and its role.
2. Main specialized agencies of U.N.O.
3. Role of U.N.O. in world peace.
4. Peace keeping forces of the U.N.O.
5. Veto power and Security Council.

Unit-II WAR AND PEACE

1. Settlement of International Disputes.
2. Diplomatic agents and Consuls.
3. War Crimes.
4. Neutrality.
5. Intervention.

Unit-III HUMANITARIAN LAW

1. Basic concepts and development of Humanitarian law.
2. UN General Assembly declaration of human rights on Dec. 10, 1948.
3. Protection of Victims and defenceless in armed conflict, POWs, wounded and civilians in Armed Forces.
4. Central Human Right Commission : Organisation and Function.
5. State Human Right Commission : Organisation and Function.

Unit-IV REFUGEE LAW

1. Meaning, Concept and causes of Refugee.
2. Refugee and IDPs.
3. Refugee law in India.
4. Refugee Problem in South Asia.
5. Role of International Committee of Red Cross and UNO in Refugee Problems.

Unit-V LAWS OF WAR

1. Law of Land war.
2. Law of Sea war.
3. Law of Air war.
4. Space law.
5. The International Court of Justice.

SELECTED READINGS :

1. Maunce clark, J : Readings in the Economics of War.
2. International Security : Modern political Science series.
3. Rajani Kothari : Word order.
4. Openhem, I : Use of Forces by states and International law.

PAPER - II

MODERN WARFARE

(Paper Code-922)

Aim : To enable students to appreciate the impact of Political, economic and technological developments on the patterns of conflicts between nations.

Note : Question will be set from each unit, there will be only internal choice.

- UNIT-I**
1. Development of Nuclear weapons.
 2. Effects of Nuclear Explosion.
 3. Spread of Nuclear Weapons.
 4. Missile and their characteristics.
 5. Type of Missiles.

- UNIT-II**
1. Trends in Science and Technology and their impact on war.
 2. Role of Research and Development.
 3. Development of Weapons and their impact on tactics
 4. Command, Control, Communication and Intelligence (C³I) in Modern Warfare.
 5. Elements of National Power.

- UNIT-III**
1. Military Satellites.
 2. Explosive Bombs.
 3. War Gases.
 4. Micro Organs : as a weapons.
 5. Smart Weapons.

- UNIT-IV**
1. Rocket Technology and India.
 2. Missile Technology and India.
 3. Nuclear Technology and India.
 4. Atomic Minerals and India.
 5. Space Technology and India.

- UNIT-V**
1. New word order - Political, Social and Economical.
 2. Alliance and Regional co-operation.
 3. Mobilisation of resources for war.
 4. War time economics.
 5. New trends.

SELECTED READINGS :

1. Halailan Morton : Coutemporary Military strategy
2. Brodue, Y. : Strategy in the Missile Age.
3. Markabi, Y. : Nuclear war and Nuclear peace
4. Osanka. F.M. : Modern Guerilla warfare
5. Gerald. J. : Defence Psychology
6. Know Kalus : Science and Defence
7. Pandey Girishkant : Yudh mein vigyan aven Tachniki.

PRACTICALS

50 marks

There shall be practical examination of 3.5 hours duration carrying.

The division of marks shall be as follows :

- (1) Plain Table Survey : 15 Marks.
- (2) Experimental Military Psychology : 15 Marks.
- (3) Group Descussion & Lectring : 05 Marks.
- (4) Viva-Voce : 05 Marks
- (5) Sessional work & Record : 10 Marks.

Section - A

Plain table Survey by inter section methods. (Atleast ten exercises in a session).

Section - B

Military - Psychology Experiment :

- (1) Muller-Layer-Illusion test.
- (2) Koh's Block Design Test.
- (3) Allexander Pass Along Test.

Section - C

Group Discussion and Lectures based on current topic on any international & national Problems.

INDUSTRIAL CHEMISTRY

PAPER - I

(Paper Code-0925)

CHEMICAL PROCESS ECONOMICS

M.M. 34

UNIT-I	1	Factors involved in project cost estimation, methods employed for the estimation of capital investment.	06L
	2	Capital formation, elements of cost accounting.	05L
UNIT-II	1	Interest & investment cost, time value of money equivalence.	03L
	2	Depreciation, method of determining depreciation, taxes.	04L
	3	Some aspects of marketing, pricing policy.	04L
UNIT-III	1	Profitability criteria, economics of selecting alternatives.	03L
	2	Variation of costs with capacity, Break-even point, optimum batch sizes, Production, scheduling etc.	05L
	3	Sampling of Bulk materials, techniques of sampling of solids, liquids and gasses.	03L
	4	Collection & Processing data.	02L
	5	Particle size determination.	02L
	6	Rheological properties of liquids, plastics and their analysis.	03L

INDUSTRIAL ORGANIZATION

UNIT-IV	1	Concept of scientific management in industry.	04L
	2	Functions of management, decision making, planning, organising. directing & control.	09L
	3	Location of industry.	03L
UNIT-V	1	Materials management.	05L
	2	Inventory control.	04L
	3	Management of human resources-selection, incentives, welfare & safety.	05L

BOOKS :

1. Economics of Chemical industry, Hempel, E.H.
2. Plant Design & Economics for Chemical Engineers, Peter Time Rhaus, McGraw Hill.
3. I.C.M.A. Booklets-9 & 10.
4. Industrial Organization & Management, Bethel, L.L.
5. Industrial Organization & Management, Tarachand, Vol. I & II.
6. Book on Management, O.P. Khandelwal.
7. Rheology theory & application, Vol. 5, Elrich, R.F.

PAPER - II

(Paper Code-0926)

PHARMACEUTICALS

M.M. 33

UNIT-I	1	Historical Background & development of pharmaceutical industry in India in brief.	02L
	2	Pharmacopoeias - Development of Indian pharmacopoeia & introduction of B.P., U.S.P., E.P., N.F. & other Important Pharmacopoeias.	02L

	3	Introduction to various types of formulations & routes of administration.	02L
	4	Aseptic conditions, need for sterilisation, various methods of sterilisation.	02L
UNIT-II	1	Various types of pharmaceutical excipients their chemistry, process of manufacture & quality, specifications Glidants, lubricants, diluants, preservatives, antioxidants, emulsifying agents, coating agents, binders, coloring agents, flavouring agents gelatin & other additives, sorbitol, mannitol, viscosity builders etc.	12L
	2	Surgical dressing, sutures, ligatures with respect to the process, equipments used for manufacture, method of sterilization and quality control.	05L
UNIT-III	1	Pharmaceutical packaging introduction, package selection, packaging materials, ancillary materials, packaging machinery, quality control of packaging materials.	05L
	2	F.D.A., Important schedules & some legal aspects of drugs.	03L
	3	Pharmaceutical quality control (other than the analytical methods covered under core-subject) - sterility testing, pyrogenic testing, glass testing, bulk density of powders, etc.	06L
UNIT-IV	1	Evaluation of crude drugs-Moisture content, extractive value, volatile oil content, foreign organic matter, quantitative microscopic exercises, including starch, leaf content, (palisade ratio, stomatal number & index vein, islet number & vein termination number), crude fiber content, introduction to chromatographic method of identification of crude drugs.	06L
	2	Chromatography, Paper chromatography, TLC, HPLC, GLC.	04L
	3	Ion chromatography.	01L
INSTRUMENTATION			
UNIT-V	1	UV-Visible spectroscopy.	03L
	2	IR-Spectroscopy non-dispersive IR.	03L
	3	NMR Spectroscopy.	03L
	4	Atomic Absorption & Flame photometry.	03L
	5	Neutron diffraction.	01L
	6	X-Ray Fluorescence.	01L
	7	Ion Selective Electrodes.	01L

BOOKS :

- 1 Instrumental methods of analysis, Willard, Merit, Dean.
- 2 Introduction to instrumental methods of analysis, Braun, R.D., McGraw Hill.
- 3 Analytical chemistry, J.B. Dick, McGraw Hill.
- 4 Quantitative Inorganic analysis, A. Vogel.
- 5 Instrumental methods of Analysis, Skoog & West.
- 6 Instrumental Methods of Analysis, B.K. Sharma.

PAPER -III

(Paper Code-0927)

DRUGS

M.M. 33

UNIT-I	1	Phyto-chemicals-Introduction to plant classification & crude drugs, cultivation, collection, preparations for the market & storage of medicinal plants.
---------------	---	---

2. Classification of various types of drugs with examples.
 3. Raw materials, process of manufacture, effluent handling, etc. of the following bulk drugs :-
 - ⌘ Sulpha drugs-sulphaguandine, sulphamethoxazole.
- UNIT-II**
1. Chemical constitution of plants including carbohydrates, amino acids, proteins, fats, waxes, volatile oils, terpenoids, steroids, saponins flavonoids, tanins, glycosides, alkaloids.
 2. Various isolation procedures for active ingredients with examples for alkaloids, reserpine one for steroids sapogenin, diosgenin, diogron.
- UNIT-III**
1. Antimicrobial :- Chloramphenicol, Furazolidne, Mercurochrome, Isoniazid, Na-PAS.
 2. Analgesic-AntiInflammatory :- Salicylic acid and its derivatives, Ibuprofen, Mefenamic acid.
 3. Steroidal Harmones :- Progesterone, Testosterone, Methyl testosteme.
- UNIT-IV**
1. Vitamins :- Vit.-A, Vit.-B6, Vit.-C.
 2. Barbiturates :- Pentobarbital.
 3. Blockers :- Propranolol, Atenolol.
 4. Cardiovascular Agent :- Methyl dopa.
 5. Antihistamins :- Chloropheneramine Maleate.
- UNIT-V**
1. Products based of fermentation processes :- Brief idea of micro-organisma, their structure, growth & usefulness. Enzyme systems useful for transformation, microbial products.
 2. General principles of fermentation processes & product processing.
 3. Manufacture of antibiotics - Pencillin-G & semi synthetic pencillines, Rifamycin, Vitamin-B12.
 4. Bio-transformation process for prednisolone, 11-hydroxylation in steroids.
 5. Enzyme catalysed transformation, manufacture of ephidrine.

BOOKS :-

1. Practical Pharmacognosy, T.B. Wllis.
2. Practical Pharmacognosy, T.N. Vasudevan.
3. Modern Pharmacognosy, Remstad, McGraw Hill.
4. Indian Pharmacopoea, 1985.
5. British Pharmacopoea, 1990.
6. Hand Book of Drugs & Cosmetic Act, Mehrotra.
7. Phamaceutical excipients.
8. Phamaceutical Dosage forms.
9. Principles of Medicinal Chemistry, W.O. Foye, Lea & Febigen, Publication Phidelfia.
10. Text Book of Organic Medicinal & Phamaceutical Chemistry, Willson, Gisvold, Derge; Lippinett-Toppan.
11. Essentials of Medicinal Chemistry, Korolkovas & Burkhatler, Wiely Interscience.

PRACTICAL

Marks : 50

The Practical examination will be of 08 Hrs. Duration spread over two days carrying 50 Marks.

Two experiments have to be performed.

1. Synthesis of common industrial compounds involving two step reactions. 4-Bromoaniline, 3-Nitroaniline, Sulphanilamide, 4-Aminobenzoic acid, 4-Nitrobenzoic acid, dihalobenzenes, Nitrohalobenzenes.
2. Industrial analysis of common raw materials as per industrial specification :- Phenol, Aniline, Formaldehyde, Hydrogen peroxide, Acetone, Epoxide, Olefins, Oils etc.
3. Demonstration of various pharmaceutical packaging materials, quality control tests of some materials, -Al Strips, Cartons, Glass bottles.
4. Limit tests for chlorine, heavy metals, arsenic, etc. of two representative bulk drugs.
5. Demonstration of various pharmaceutical products.
6. Active Ingredient analysis of few types of formulations representing different methods of analysis-acidimetry, alkalimetry, non-aqueous.
7. Determination of sulphate ash, loss on drying & other tests of bulk drugs, complete I.P. monograph of three drugs representing variety of testing methods.
8. Evaluation of crude drugs-macroscopic examination-determination & identification of starch granules, calcium oxalate.
9. Palisade ratio, stomatal index-determination & Identification of few drugs. TLC method for identification.
10. Microbiological testing-determination of MIC of some antibacterial drugs by zone/cup plate method.

DISTRIBUTION OF MARKS :

1	Experiment No. 1.	20
2	Experiment No. 2.	10
3	Viva	05
4	Sessional	05
5	Project Work	10
	Total	50

COMPUTER SCIENCE

PAPER - I

(Paper Code-0909)

COMPUTER HARDWARE PART-C

AIM : The emphasis is on the design concepts & organisational details of the common PC, leaving the complicated Electronics of the system to the computer engineers.

Objective of the Course :

1. To introduce the overall organisation of the microcomputers and operating systems.
2. To introduce the interaction of common devices used with computers with operating softwares, excluding the Assembly languages, with special reference to DOS/WINDOWS.
3. To introduce the working of hardware components, Micro-Processor and various chips used in micro-computers by operating system, without the use of electronic circuitry.
4. To introduce the use of operating systems architecture with IBM-PC & clones, excluding Assembly language, with forms an important part of hardwares.

N.B. : Since the computer organisation study is very vast & complicated, so the study is restricted only to the description and understanding part, hence the paper-setter is requested to keep this important factor in mind.

UNIT-1 : ORGANISATION OF Micro-Processor & MICRO-COMPUTER :-

1. Introduction & organisation of Micro-Computer :

- (a) Basic Components of Micro-computer : Basic Block; Prom ram memory; Data memory; I/O Ports; Clock generator; Integration of functional blocks.
- (b) Interconnecting Components in a Micro-computer : Necessary functional block; Bussed architecture for microcomputer; memory addressing; Addressing I/O ports; comparison of I/O mapped and memory mapped I/O.
- (c) Input Output Techniques : Non-CPU devices, Program & interrupt controlled I/O; Hardware controlled I/O or DMA.

2. An Introduction to the various as :

- (a) General understanding of different μP or CPU : Intel 8088, 286, 386, 486, 586 Pentium, P54C, MMX P55C; Motorola 6800 & 88100 series; CYRIX & AMD CPUs.
- (b) The Registers of CPU : (Give Example of P-8088) Register organisation of 8088, Scratch pad segment, pointer, Index and Flag, Registers.
- (c) Memory addressing modes of P-8088 : Segment offset; Data addressing modes; Addressing for branch instructions.
- (d) I/O Addressing with P-8088 : Memory mapped I/O & I/O mapped I/O.

UNIT-2 : SYSTEM HARDWARE ORGANISATION OF COMPUTERS :

1. Hardware Organisation of the Personal Computer :

- (a) Block diagram with various parts of PC.
- (b) The Mother Board of General P.C. : 8088 CPU; ROM & RAM; Keyboard

& its interface; System timer/counters; Hardware interrupt vectoring; DMA controller & channels; Interfacing to audio speaker; Bus slots & factory cards.

- (c) The Serial I/O ports, COM-1 & COM-2.
- (d) The parallel Port for Printer.
- (e) Expansion Slots for RAM.
- (f) Disk Controllers : For floppy, Hard disk, CD-ROM & Cassets drives.

2. The Video Display of PCs :

- (a) Video Monitors; Monochrome and colour.
- (b) Video Display Adapters & Their Video Modes; Monochrome & colour graphics adapters.
- (c) Video Control Through ANSI-SYS.
- (d) Video Control Through ROM-BOIS : INT 10H.
- (e) Direct Video Control; Monochrome & colour graphics adapters.
- (f) Installing Customized Character Sets.

UNIT-3 : ORGANISATION OF OPERATING SYSTEM WITH SYSTEM HARDWARE :

1. The ROM-BIOS Services :

- (a) Introduction to UNIX, ENIX, SUN, solaris, DOS & MAC with special reference to DOS & Windows, its ver., as DOS becomes more popular than others in PCs.
- (b) The ROM-BIOS Diskette Services, INT 13H.
- (c) The ROM-BIOS Serial Port Services, INT 14H.
- (d) The ROM-BIOS Keyboard Services, INT 16H.
- (e) The ROM-BIOS Printer Services, INT 17H.
- (f) Miscellaneous Service Provided by the ROM-BIOS : INT 05H, INT 11H, INT 12H, INT 18H, INT 19H, INT 1AH.

2. The fundamental of Operating System viz. DOS/WINDOWS :

- (a) The loading of DOS & Its Basic Structure ; ROM bootstrap, IO.SYS, DOS.SYS & Command.COM.
- (b) The Execution of the programs under DOS ; EXEC functions, program segment prefix; Features of COM & EXE program files.
- (c) Device Handling by Dos ; FDD, HDD, CON, Keyboard, PRN, AUX, CLOCK and NUL devices; Block devices; Character devices; Driver installation sequence.
- (d) File Structures of DOS ;
- (e) The DOS Interrupts : INT 20H-2FH
- (f) The DOS functions through INT 21H; Discuss only the understanding part of various other DOS function to handle hard & softwares.
- (g) Installation of windows : Important system files in windows.

UNIT-4 : ORGANIZATION & HANDLING BY OPERATING SYSTEMS :

1. Disk and Files under DOS :

- (a) Logical Structure of a Disk : Organisation of disk for use; Boot record ; FAT

files; disk or root directory.

- (b) File Organisation on a DOS disk : Logical volumes ; Sub directories; Volume labels.
- (c) Manipulating Files under DOS : File attributes ; date and time, file Access; FCB functions.

2 Memory Allocation, Program Loading and Execution :

- (a) Memory Management under DOS : EXEC loader; Memory Management & its functions; Modifying a Program's memory allocation.
- (b) Loading and Executing Programs under DOS : The EXEC function ; Memory considerations; parameter blocks; calling & returning from EXEC.
- (c) Loading the program overlays through EXEC.

UNIT-5 : ORGANISATION OF HARDWARE BY OPERATING SYSTEM :

1 Interrupt Handling through DOS :

- (a) Types of interrupts.
- (b) Interrupt Vector Table in PC.
- (c) Interrupt Service Routines.
- (d) Special Interrupts in PC : Clock Interrupt; The -C or Break Interrupt ; DOS reserved interrupt INT 28H ; Patching memory resident routines.

2. Filters for DOS :

- (a) Filters in operating systems.
- (b) Redirection of I/O under DOS.
- (c) The Filters Supplied with DOS.
- (d) Writing Filters to run under DOS.

3. Handling of Various Versions of Windows O.S. :

- (a) Setup Installation
- (b) Trouble shooting
- (c) Networking features

Text Book :

- 1 Hardware and Software of Personal Computers.
By Sanjay K. Bose. (Wiley Eastern Ltd. New Delhi).

Supporting Text Books :

- 1 Digital System from Gates to Microprocessor.
By Sanjay K. Bose. (Wiley Eastern Ltd. New Delhi).
- 2 Computer Fundamentals : Architecture & Organisation.
By B. Ram.. (Wiley Eastern Ltd. New Delhi).

Reference Books :

- 1 IBM PC-XT and Clones : By Govinda Rajalu.
- 2 Microprocessor and interfacing : By Douglas Hall.
- 3 Insight the IBM-PC : Peter Norton.
- 4 Microprocessor System : 8086/8088 family architecture, programming & design : By Liu and Gibson.

PAPER - II
(Paper Code-0910)

Atm : To introduce DBMS and RDBMS using Back-end tool and Front-end tool.

Object of the Course :

- 1 To introduce Data Base Management System concepts.
- 2 To introduce the Relational Database Management System and Relational Database Design.
- 3 To introduce the RDBMS software and utility of query language.
- 4 To introduce basic concept of GUI Programming and database connectivity using Visual Basic.

UNIT-1 : CONCEPT OF D.B.M.S. AND DATA MODELS

- (a) Introduction to DBMS :- Purpose of Data base systems, views of data, Data Modeling Database Languages, Transaction management, Storage Management, Database Administrator and User, Database System Structure.
- (b) E-R Model : Basic concepts, Constraints, Keys, Mapping Constraint, E-R Diagram, Weak and Strong Entity sets, E-R Database Schema, Reduction of an E-R Schema to Table.

UNIT-2. : RELATIONAL DATABASE MANAGEMENT SYSTEM

- (a) Relational Model : Structure of Relational Database, Relational Algebra, Domain Relational Calculus, Extended Relational- Algebra Operation, Modification of database, Views.
- (b) Relational Database Design : Pitfalls in Relational Database Desing, Decomposition Functional Dependencies, Normalization : 1NF, 2NF, BCNF, 3NF, 4NF, 5NF.

UNIT-3 : INTRODUCTION TO RDBMS SOFTWARE - ORACLE

- (a) Introduction : Introduction to personal and Enterprises Oracle, Data Types, Commercial Query Language, SQL, SQL*PLUS.
- (b) DDL and DML : Creating Table, Specifying Integrity Constraint, Modifying Existing Table, Dropping Table, Inserting Deleting and Updating Rows in as Table, Where Clause, Operators, ORDER BY, GROUP Function, SQL Function, JOIN, Set Operation, SQL Sub Queries. Views : What is Views, Create, Drop and Retrieving data from views.
- (c) Security : Management of Roles, Changing Password, Granting Roles & Privilege, with drawing privileges.
- (d) PL/SQL : Block Structure in PL/SQL, Variable and constants, Running PL/SQL in the SQL*PLUS, Data base Access with PL/SQL, Exception Handling, Record Data type in PL/SQL, Triggers in PL/SQL.

UNIT-4 : G.U.I. PROGRAMMING

- (a) Introduction to Visual Basic : Event Driven Programming, IDE, Introduction to Object, Controlling Objects, Models and Events, Working with Forms, MDI Form Working with standard Controls.
- (b) Overview of Variables, Declaring, Scope, Arrays, User defined data types, Constants, Working with procedures : Function, Subroutine, and Property.

Working with Data, Time, Format, String, and Math's Function. Controlling Program Execution: Comparison and Logical Operators, If...Then statements, Select Case Statement, Looping Structures, Exiting a loop. Error Trapping and Debugging.

- (c) File Organization : Saving data to file, Sequential and Random access file, the desing and coding.

UNIT-5 : V DATA BASE PROGRAMMING IN VB

- (a) Introduction :- Concept of DAO, RDO, ADO, input validation : field & form level validation, ADO object model : the ADO object Hierarchy, the connection object, the command object, record set object, parameter object, field object, record object, stream object, Error object, parameter object.
- (b) Using Bound control to Present ADO data : Using the ADO data control, ADO data control properties, binding simple controls : Data list, data combo, Data Grid, Data Form Wizard : single form wizard, Grid form, master/Detail form. Programming the ADO data control : Refresh method, Event, Hierarchical flex Grid control.
- (c) Data Environment & Data Report : Creating connection, Using command object in the data Environment, Data Environment option and operation, Binding Form to the data Environment, ADO Events in the Data report, Print Preview, Print, Export, Data report in code : Data reports Events, Binding data reports Directly.

REFERENCE BOOKS :

- 1 Data Base System Concept : By Hery F. Korth, Tata McGraw Hill
- 2 Fundamental of Data Base : Nawathe & Elmasri (Pearson educations)
System Concept
- 3 Oracle Complete Reference : By Oracle Press
- 4 Introduction to OOPS & VB : By V.K. Jain, Vikas Publishing House
- 5 Database Programming VB 6 : By B.P.B. Publication

PRACTICALS :

1 Practicals on Oracle :

At least 20 practicals covering the SQL, PL/SQL, Triggers, Views.

2 Practicals on Visual Basic :

At least 20 practicals on VB that covering basic and data controls components.

INFORMATION TECHNOLOGIES

PAPER - I

(Paper Code-0928)

AMPLIFIERS AND OSCILLATORS

- UNIT-I POWER AMPLIFIER** : Classification of power amplifiers, requirement of power amplifiers, single ended class A power amplifier, and its efficiency, transformer coupled power amplifier, power dissipation curve, harmonic dissipation curve, harmonic distortion in pushpull power amplifier, power and efficiency calculation for pushpull for pushpull power amplifier, Distortion in pushpull power amplifier, Advantages of pushpull power amplifier.
- UNIT-II FEEDBACK AMPLIFIERS AND OSCILLATORS** : Feedback in amplifiers, types of feedback positive, and negative feedback. Derivation of input and output impedance in voltage and current series feedback. Advantages of negative feedback. Positive feedback. Barkhausen criteria for sustained oscillator. RF oscillators-Hartley oscillator, Colpitts oscillators (Qualitative study) relaxation oscillators, Multivibrators-Astable, Monostable.
- UNIT-III OPERATIONAL AMPLIFIER AND POWER CONTROL DEVICES** : Differential amplifier, operational amplifier, Characteristics of an ideal OPAMP, definition of input bias current input offset current, current drift, input offset, common mode rejection ratio, slew rate, universal biasing technique, Application of OP-Amp, as inverting, non-inverting amplifiers, differentiation, Integrator, scalar charger and voltage follower, Silicon controlled rectifier (SCR), Diac, Triac and UJT (Only qualitative study).
- UNIT-IV THE INTEL 8080/8085 MICROPROCESSOR** : Introduction, the 8085 pin diagram and functions, The 8085 architecture, addressing modes, the 8080/8085 instruction set, the 8080/8085 data transfer instructions, the 8080/8085 arithmetic instructions, the 8080/8085 logical instructions the 8080/8085 stack, I/O and machine controlled instructions.
- UNIT-V PROGRAMMING THE MICROPROCESSOR** : Machine and assembling languages simplified instruction set, Instruction set, arithmetic operation, Instructions set logical operations, instruction set data transfer operations, instruction set branch operations, instruction set-subroutine call and return operations, instruction set miscellaneous operations, writing a program, addressing modes, program branching, program looping using subroutines.
- Programming the 8080/8085 microprocessor : Introduction straight-line programs looping programs, mathematical programs.

PAPER - II

(Paper Code-0929)

FUNDAMENTAL DATA STRUCTURE

- UNIT-I Introduction to Data Structure** : The concept of data structure, Abstract data structure, Analysis of Algorithm, The concept of list.

Stacks and Queues : Introduction to stack & primitive operation on stack, Stack as an abstract data type, Multiple Stack, Stacks application : infix, post fix, and Recursion, Introduction to queues, Primitive Operations on the Queues, Queue as an abstract data type, Circular Queue, Dequeue, Priority Queue.

UNIT-II Linked List : Introduction to the linked list of stacks, The linked list of queues, Header nodes, Doubly linked list, Circular linked list, Stacks & Queues as a Circular linked list, Application of linked list.

UNIT-III Trees: Basic Terminology, Binary Trees, Tree Representations as Array & Linked list, Binary tree representation, Traversal of binary trees : In order, Preorder & post order. Application of Binary tree, Threaded binary tree, B-Tree & Height balanced tree, representation of B⁺ & B* trees, Binary tree representation of trees, Counting binary trees, 2-3 Trees algorithm or manipulating 2-3 Trees.

UNIT-IV Searching & Sorting : Sequential Searching, Binary search, Insertion sort, Selection sort, Quick sort, Bubble sort, Heap sort, Comparison of sorting methods.

UNIT-V Tables & Graphs : Hash Table, Collision resolution Techniques, Introduction to graphs, Definition, Terminology, Directed, Undirected & Weighted graph, Representation of graphs. Graph Traversal Depth first & Breadth first search, Spanning Trees, minimum spanning Tree, The basic, Greedy Strategy for computing Algorithm of Kruskal and prims.

TEXT & REFERENCE BOOK :

Fundamentals of Data structure : By S. Sawhney & Horowitz

Data Structure : By Trembley & Sorrenson.

Data Structure Using Pascal : By Tannenbaum & Alugenstein

Data Structure : By lipschuits (Schaume's Outline Series McGraw Hill Publication)

Fundamentals of Computer Algorithm : By Ellis Horowitz and Sartaj Sawhney.

PRACTICAL WORK

1. The sufficient practical work should be done for understanding the data structure with C++.
2. The sufficient practical work must be performed on stacks queues linked list, trees etc.
3. All practical works should be prepared in form of print outs and evaluated while practical examination.

INDUSTRIAL MICROBIOLOGY

Paper	Title	Time	Marks
First	Agriculture and Food Microbiology	3 hrs.	50
Second	Fermentation Technology & Government Regulations	3 hrs.	50
	PRACTICAL Examination (including sessionals)	4 hrs.	(20+5) 25
	Viva-Voce Exam. based on "Summer Job-Training Report"		25

PAPER - I

(Paper Code-0930)

AGRICULTURE AND FOOD MICROBIOLOGY M.M. : 50

- UNIT-I** Soil fertility and management of agricultural soils. Influence of available nitrogen on soil-fertility. Importance of crop-rotation. Soil management. Management practices : Pesticides and their impact and effect on soil fertility.
- UNIT-II** Microbial diseases of crop plants with special reference to Wheat, Rice, Maize, Groundnut, Mustard, Grapes, Potato and Papaya.
- UNIT-III** Control of plant diseases. Chemical control of plant diseases. Biological Control- its mechanism and importance. Biopesticides. Concept of integrated pest management (IPM). Bacterial insecticides.
- UNIT-IV** Food spoilage mechanism, Spoilage of stored products, fruits and vegetables. Microbial spoilage of milk and meat. Food borne diseases.
- UNIT-V** Food preservation methods - Asepsis, Pasteurisation canning, dessication, low temperature, Anaerobiosis, filtration.
Chemical preservation of food - salt and sugar, organic acids. Use of SO₂, ethylene and propylene oxides, wood smoke.

PRACTICALS

1. Study of microbial diseases of crop plants.
2. Study of effect of fungicides and insecticides on microorganisms.
3. Study of antagonistic activities amongst microorganisms.
4. Study of fungal contaminants from stored agricultural products.
5. Study of food spoilage microorganisms from sweets and bakery products.
6. Study of effect of the preservatives on the growth of microorganisms.
7. Study of UV radiations on microorganisms.
8. Study of the effect of agrochemicals on soil inhabiting microorganisms.

RECOMMENDED BOOKS :

1. Modern Plant Pathology by Bilgramy and Dubey.
2. Food Microbiology by Frazier.
3. Microbiology by S.S. Purohit.
4. Microbiology by P.D. Sharma.
5. Agricultural Microbiology by Rangaswami.
6. Plant Pathology by R.S. Mehrotra.

PAPER-II

(Paper Code-0931)

FERMENTATION TECHNOLOGY AND GOVERNMENT REGULATIONS

M.M. : 50

- UNIT-I** Fermentation equipments and production process. Principal types of fermenters - The batch fermenters, continuous stirred tank fermenters, Tubular fermenter, The fluidised bed fermenter, Solid State fermenters. Computer control of fermentation process. Strain improvement process.
- UNIT-II** Industrial production of organic acids - Lactic and citric acid.
Enzymes - amylase, protease and amino acids - L-lysine and glutamic acid.
- UNIT-III** Production of alcohol, wine, beer and acetic acid.
Production of antibiotics - Penicillin and Streptomycin.
Industrial production of vitamins - Vitamin B12 and Riboflavin.
- UNIT-IV** Importance of microorganisms in dairy industries. Production of cheese, Butter milk; and in bakery industries - leavening of bread, Indian fermented foods.
Fungi and bacteria as a source of single cell proteins (SCP) and proteins.
- UNIT-V** Role of international organisation in biotechnology. Government programmes for biotechnology development. Government regulations of recombinant DNA research. Hazardous industrial wastes, Mycotoxin hazards in the production of fungal products. Regulations for disposal of biohazardous materials. Patenting of the products in Industries.

PRACTICALS

1. Measurement of production of citric acid by *Aspergillus niger*.
2. Measurement and production of alcohol by yeast.
3. Demonstration of Transformation of steroids.
4. Demonstration of IAA production by microbes.
5. Demonstration of enzyme production by microorganisms.
(a) Amylase (b) Cellulase
6. Demonstration of mushroom cultivation.

RECOMMENDED BOOKS :

1. Industrial Microbiology by L.E. Casida.
2. Fermentation Technology by Whittakar.
3. General Microbiology, Vol. II, by Powar and Dagainawala.
4. Molecular Biology and Biotechnology by H.D. Kumar.
5. Elements of Biotechnology by P.K. Gupta.

ELECTRONICS

	Max.M.	Min.M
Paper-I Power Electronics, Microprocessors and IT Fundamental's	50	
Paper-II Communication Systems	50	33
Paper-III Practicals and Project	50	17

PAPER - I

(Paper Code-0911)

POWER ELECTRONICS, MICROPROCESSORS AND IT FUNDAMENTAL'S

- UNIT-I** Comparative study of semiconductor power Devices : Power Diodes, Power Transistors, Unijunction Transistor, Silicon controlled Rectifier, Diac and Triac.
Structural Description and working of Unijunction Transistor (UJT), Characteristic curve, Use of a UJT as a Relaxation oscillator.
Description and working of a DIAC, Characteristic curve.
Description and working of a Triac, Characteristic curve, Triac as a switch.
Silicon controlled Rectifier : Description of the structure and idea of doping profiles of different layers, Two Transistor model analysis of SCR, Voltage current Characteristics, Forward and Reverse Blocking states; Triggering mechanisms and methods of turn on, turn off mechanism.
- UNIT-II** 8085 up Instruction Sets and Programing of 8085 microprocessor : Logic 8 bit Instructions of 8085 Data Transfer (copy) Instructions, MOV, Arithmetic Instructions (ADD, ADI, SUB, SUI, INR, DCR), Logic operations : ANA, ANI, ORA, ORI, XRA, XRI, Branch Operations : Unconditional and Conditional Jump Instruction, Rotate Operations : RLC, RAL, RRC, RAR, 16 Bit Arithmetic and Logical operations.
Use of Instruction set to make following programs.
Ⓐ Data Block Transfer.
Ⓑ To Arrange a Series in Assending and Decending Order.
Ⓒ Largest Number Finding.
Ⓓ To Carry out simple arithmetic operations : Addition, Division Multiplication, Subtraction.
- UNIT-III** Programmable Interface Devices : Internal Architecture and pin out diagram of the 8155/8156 and 8355/8755 Multipurpose Programmable Devices, The 8279 Programable keyboard/display interface.
Interfacing Data Converters : Digital to Analog (D/A) converter, Analog to Digital (A/D) converter.
- UNIT-IV Information Technology :**
Information theory - Introduction information in communication system, measurement of information, the binary digit (bit).
Data sets and their connection requirements, Modem : Classification, modes of modem operation, modem interconnection, modem data transmission speed.
Internet basics : Basic information about Http, WWW, HTML, shell and TCP/IP account, Browsers - Netscape and Internet explorer, e-mail.

UNIT-V Communication Technology :

LAN, WAN and MAN, wireless network, Internetwork, network topology, OSI and TCP/IP reference models, comparison between them and their criticism. Details about Physical layer : magnetic media, twisted pair (UTP and STP), coaxial cable, fiber-optic cable Basic idea about ISDN.

REFERENCES :

- 1 Power Electronics : M.H. Rashid Prentice Hall of India, New Delhi.
- 2 Microprocessor Architecture : R.S. Gaonkar Penram Publication, Mumbai.
Program and Applications
- 3 Computer Network : A.S. Tanenbaum, Second Edition Prentice Hall of India Pvt. Ltd.
- 4 Introduction to Microprocessors : A.P. Godse, VITU Publishers, Pune.
- 5 Power Electronics : Alok Jain Penram Publishers, Mumbai.
- 6 Microprocessors & Interfacing : Douglas V. Hall Tata McGraw Hill.

PAPER - II

(Paper Code-0912)

COMMUNICATION SYSTEMS

UNIT-I Analysis of passive filters (low pass, band pass and high pass), elementary idea of active filters-Butterworth and Chebyshev response) Noise : Thermal noise, shot noise, Partition noise, low frequency and transit time noise, Generation and recombination noise, equivalent noise resistance, signal to noise ratio, noise factor, noise temperature.

UNIT-II Modulation : Principle of modulation, wave spectra and effect of filtering an complex wave : Amplitude modulation; frequency spectrum of AM, average power average voltage, modulation index for multiple sine waves, linear and square modulators, collector modulator, balance modulator, single side band (SSB) generation/method, diode detector, advantages and disadvantages of SSB over DSB AM : SSB detection, Transmitters and Receivers : Superheterodyne receiver, AM Transmitters.

UNIT-III Angle Modulation : Elements of frequency and phase modulation frequency spectrum of FM waves, inter system comparisons (FM and AM); Generation of FM, direct and indirect methods; Angle - Modulator circuits, varactor diode and FET modulators; Foster Seelay discriminator and ratio detector.

UNIT-IV Pulse Modulation : Pulse Modulation, pulse transmission, pulse amplitude modulation, time division multiplexing, pulse time modulation, pulse width and pulse position modulation, digital filtering, pulse code modulation; Block diagrams of PCM transmission and receiving circuits.

UNIT-V Television engineering : Scanning process, characteristics of human eye, aspect ratio, persistence of vision and flicker, resolution and video bandwidth, interlaced scanning, blanking, synchronizing and equalizing pulses, Vestigial side band signal, standard channel characteristics, TV camera tubes Image orthicon and vidicon; Block diagram of TV transmitter and receiver.

Three colour system, luminance and chrominance signal, colour TV camera, Shadow mask, Trinitron and in line colour picture tubes.

REFERENCES :

1. Electronic Communication Systems : George Kennedy, Tata Mcgraw Hill.
2. Principles of Communication Systems : Taub & Schilling TMH
3. Communication Systems : Simon Haykin, Mcgraw Hill.
4. Monochrome & Color Television : R.L. Gulati, New Age International, New Delhi.

PAPER - III

PRACTICALS AND PROJECT

A student is required to do atleast 12 experiments and a project work in the academic year.

The scheme of practical examination will be as follows :

⊕ One experiment and Working and Demonstration of Project works - 5 :

Marks		
Experiment	-	20
Viva	-	05
Project work & Viva	-	15 (10+5)
Sessional	-	10
Total	-	50

1. Study of SCR characteristics.
2. Study of Diac and Triac characteristics.
3. Study of UJT Characteristics.
4. Study of UJT as a relaxation oscillator.
5. Study of AM generation and detection.
6. Radio Receiver measurements.
7. Study of low pass, band pass and high pass filters.
8. Study of FM using voltage controlled oscillators.
9. Study of DC choppers.
10. Study of Pulse code modulation.
11. Study of electronic regulation of D.C. & A.C. Motors.
12. Any four experiments on microprocessors.

NOTE : Other experiments of equal standard may also be set.

ANTHROPOLOGY

PAPER-I

(Paper Code-0919)

"FUNDAMENTALS OF HUMAN GENETICS & HUMAN GROWTH"

AIM- The aim of this paper is to introduce the students the basics of Human Genetics and Human Growth.

- UNIT-I** Human Genetics : History, aims and scope. and its application to human society Cell division : Mitosis and Meiosis. Mendelism, Chromosomes ; Normal and Abnormal chromosomes. Genes, concept of DNA & RNA. Types of Inheritance : autosomal, (Dominant and Recessive). Sex linked Inheritance.
- UNIT-II** Concept of Race. Formation of Racial groups. Criteria for racial classification. Racial elements in India. Major stocks of the world and their broad sub divisions.
- UNIT-III** Types of twins and their importance in genetic investigation. Inheritance of ABO Blood groups, P.T.C., Colour blindness and dermatoglyphics. Genetic counselling, Eugenics. Population Genetics.
- UNIT-IV** Definition and scope of Human growth. Methods of studying human growth and Development. Ageing, Nutritional requirement for normal growth. Common nutritional disorder (Protein, Fat, Carbohydrates, Mineral, Vitamin).
- UNIT-V** Ecology : definition and scope. Varieties of human ecosystems. Environmental Population. Definition, nature and scope of biological demography. Demographic Profiles : Fertility, Mortality, Morbidity.

RECOMMENDED READINGS :

1. Agrawal S.N. : India Population Problems
2. Bogue : Principles of Demography
3. Bresler : Human Ecology
4. Gran and Shamir : Methods of Research in Human Growth
5. Hari.II. : Biochemical Genetics Man
6. Harrison. A.E. (editor) : Human Biology
7. Phyllis and Home, P.S. : Basic nutrition in health & disease
8. Race, R.R. & Sanger R. : Blood Group in Man
9. Stern C. : Principles of Human Genetics
10. Tanner, J.M. : Human Growth
11. Theodaron : Studies in Human Ecology
12. Walson and Lowry : Growth and Development of Children
13. Winchester A.W. : Principal of Genetics
14. रघुवंशी अरूण एवं चन्द्रलेखा : पर्यावरण प्रदूषण
15. Sinnott, Dunn & Dozansky : Principles of Genetics

PAPER-II

(Paper Code-0920)

THEORIES IN SOCIAL CULTURAL ANTHROPOLOGY

AIM : The main aim of this course is to introduce the student about the basic principles and Theories of Social cultural Anthropology to provide preliminary understanding of various theoretical models evolved by Social and Cultural Anthropology.

- UNIT-I** The contributions made by the following Anthropologists to Social-Cultural Anthropology. (I) E. Durkheim, (II) F. Boas, (III) R. Redfield, (IV) A. L. Kroeber, (V) S.C. Dube, (VI) M.N. Shrinivas, (VII) L.P. Vidyarthi.
- UNIT-II** Evolution: Biological and cultural Evolutionism; classical Evolutionism; E.B. Tylor, L.H. Morgan.
Neo - Evolutionism; jLeslie white, Gordon childe.
Culture traits, Culture Complex, Culture Area, Culture focus.
Diffusion of Culture : British diffusionist : German - Austrian diffusionist (Kuttre kriese American diffusionist (Culture Area).
- UNIT-III** Function and structure: Functionalism (Malinowski) and Structure Functionalism (Redcliffe Brown) Structuralism (Levi Strauss).
- UNIT-IV** Personality : Basic personality and Model personality.
Culture pattern : Configurationalism (Ruth Benedict). Anthropological study of National character.
- UNIT-V** Field work tradition in Anthropology Major tools of Research: Schedule, Questionnaire, Participant observation, interview, case study, Geneological Method. The main bases of Anthropological Methods: Historical Method, Comparative Method and Functional Method.

PAPER-III

PRACTICAL

Objective : The main of this practical course is to introduce the student about the tools and Method, analysis & statistical methods used in Human Biology. Laboratory Procedures in blood grouping and dermatoglyphics would give confidence in Dealing with all the applied dimensions they process.

PART-I : Somatometry :

- (a) Measurements on body :
- (i) Height vertex, (ii) Height tragus, (iii) Suprasternale height, (iv) Biacromial Breadth, (v) Bi-illioncristal breadth, (vi) Tibial Height, (vii) Upper extremity Length, (viii) Sitting height, (ix) height dactylion, (x) Body weight.
- (b) Head and Face Measurement :
- (i) Morphological upper facial length.
 - (ii) Physiognomic upper facial length.
 - (iii) Morphological facial length.

- (iv) Bizygomatic breadth.
 - (v) Max head length
 - (vi) Max head breadth
 - (vii) Nasal length
 - (viii) Nasal breadth
- (c) Indices :
- (i) Cephalic Index
 - (ii) Nasal Index
 - (iii) Facial Index

PART-II Genetic Traits :

ABO blood group ; colour blindness, PTC taste sensitivity, Dermatoglyphics, Methods of taking finger and palm prints and their analysis.

PART-III Statistics

Mean, Median, Standard deviation, X^2 test.

BOOKS RECOMMENDED :

- | | | | |
|---|---------------------------|---|--|
| 1 | Basin M.K. and I.P. Singh | : | Anthropometry |
| 2 | Cummins H. and Midlo C. | : | An Introduction of Dermatoglyphics |
| 3 | Dunsford and Bowley | : | Blood Group Techniques |
| 4 | Fisher R.S. | : | Statistical methods for Research Workers |
| 5 | मिना, मिताश्री | : | प्रायोगिक मानव विज्ञान भाग-2 |
| 6 | Olivia | : | Practical Anthropology |

ELECTRONICS EQUIPMENT MAINTENANCE

		Max. Marks	Min. pass Marks
Paper - I	Trouble shooting and maintenance of audio and video Equipments.	50	17
	Practical	50	17
	Project	50	17

PAPER-I

(Paper Code - 0913)

TROUBLE SHOOTING AND MAINTENANCE OF AUDIO AND VIDEO EQUIPEMENTS

UNIT-I REMOTE CONTROL AND SPECIAL CIRCUITS :

Remote control, electromechanical control system, electronic touch tuning frequency synthesiser, TV tuner, automatic fone tuning (AFT), booster emplier, automatic brightness control, instantious circuitry, picture tube boosters.

ALIGNMENT AND SERVICING EQUIPEMENTS :

Antistatics and low leakage multimeters, soldering Iron, Vacuum tube voltmeter (VT VM) Cathode Ray Oscillouscope (CRO) single Generation Video pattern Generator Coulor Iiur Generation Vector Scope, High voltage probe Cable connectors shielding and Graunding.

UNIT-II TELEVISION :

Trouble shooting procedure, troubles shooting monochrome receivers, servicing of various functional blocks, trouble, shooting colour receivers, servicing circuit modes, saprets precautions in television servicing.

TELEVISION CAMERA TUBES :

Basic principles and maintenance recording.

UNIT-III BLOCK DIGRAM OF VCR :

Requirement of VCR, retaining video drums, helical scan, guard band, frequency response, serva systems, tape tension regulatar, real servo, system control.

Different fomats, the quacruplex format, type B segmented format, type C fomtet, the U matic format, the 1/2" V.H.S. format, 3-Max system.

UNIT-IV SINGAL PROCESSING, CHROME PROCESSING :

Colour under technique, recovery of down converted chrome signals, luminance processing. frequency modulation, deviation and band width, autometric gain correction, limited, pre-emphasis, replay of luminance signal, Y/C delay, drop out compensator, block diagram of main requirements, zero guard band system, turners and modulators, the modulator.

Servo mechanisms and system control :

Recording, playback, tracking, capstan servo system control, loading and tereading and play mode, record mode, auto stops, counter, audio video muting.

UNIT-V CARE OF MECHANICAL SYSTEM :

Cleaning of head and tape path. Lubrication, replacement of parts, replacement of audio CTC head, replacement of video drum, dihedral error, table height, tape tension. drive toungue stop brenks.

ELECTRONIC SYSTEM ALUGNMENTS :

Instruments, fault finding the power supply, free running speed the servo system, tracking, video system, playback section alignment, amplifier balance and gain, luminance signal adjustment, D.O.C., F.M. demodulator, limited balance, carrier leak, noise canceller, colour processing, up conversion automatic colour correction, automatic face connection recording, luminance, synctip or clamping frequency, deviation set, white clip, chrominance, summary.

NEW TECHNOLOGIES :

Industrial aspects of consumer electronics, jigs and fixture, quality control/management, production techniques, business cycle new technologies, compact disc, laser disc.

PAPER - II
(Paper Code - 0914)

PRACTICAL

A student is required to do atleast 2 experiments in an acadmic year, and one month summer Training. The scheme of practical examination will be as follows :

(1) On experiment of 3 hours duration and one month summer Training.

(2) The marks for summer training will be awarded by the teachers teaching the students on the basis of the certificate issued by the external supervisor of the summer training.

Marks

Experiment	25 Marks
Sessional	10 Marks
on month summer training	15 Marks

Total **50 Marsk**

Orientation and connection to TV antenna. Knowledge of booster connection and replacement. Knowledge of bloom Unit - different types (for different TV sets) and replacement of ballon, Replacement of front end.

Power supply and resistance cold tests. Voltage measurement at different points. To build SMPS for voltage between 6-15 volts (using IC's).

Horizontal and vertical oscilator checking and testing using CRO.

To see and read circuit diagram and to identity (Locate) various block on p/s, H and V deflection, video amplfier, audio, section, chroma section, IF section, tuner, tube and direction yokes (connecting and adjustment).

Audio section wave form testing step by step-sound separator, sound take off from IF section and tenonwards to detector amplfier, IF alignment and loud speaker. (intercarrier sound take off).

If stage testing : IF alignment, tunner and band select.

Chroma processor : testing singals at various IC's.

Remote control studies-range, direction various, controls, IR transmitter and receiver, coding of signal.

Fault finding : cold testing and voltage testing of various parts. (Revision of parts 1 to 9).

BIOTECHNOLOGY

PAPER - I

GENERAL BIOTECHNOLOGY

Plant, Environment and Industrial Biotechnology

Time : 3 Hrs

MM-50

- UNIT-I** Plant cell and tissue culture : General introduction history, scope.
Application of tissue culture
Concept of cellular differentiation.
Agro bacterium. Ti and Ri plasmid.
Bt gene. Molecular marker (RFLP, RAPD), edible vaccines.
- UNIT-II** Organogenesis, Embryogenesis. Protoplast isolation and fusion.
Germplasm storage and Cryopreservation.
Anther and Ovary culture.
- UNIT-III** General introduction and scope of environmental biotechnology.
Environmental pollution and its type.
Control of pollution through biotechnology,
Wastewater treatment :- Physical, Chemical, and Biological.
- UNIT-IV** Biofertilizer, Biopesticides, IPR.
Global environmental problem- General introduction, Ozone depletion. Acid rain.
Green house effect.
- UNIT-V** Bioreactors and its type.
Fermentation (Lactic acid, alcohol).
Maintenance of Industrial microorganisms.
Food technology- introduction, canning. packing and food preservation.

PAPER - II

IMMUNOLOGY

Time : 3 Hrs

MM-50

- UNIT-I** Immunology - General Concept, history and Development.
Immune system and immunity, Organization of Immune system.
Antigen - Antibody and its type.
- UNIT-II** Cell involved in immune system. Type and cells. Basic structure and function.
Cytokines.
Cell mediated immunity Interferons. Hypersensitivity.
- UNIT-III** Antigen - antibody interaction. Principles and types.
Immunohaematology - General concept. Blood group system. Rh factor. medical application of blood groups.

UNIT-IV Origin and diversity in immune system.

Effectors mechanisms.

Immunity of infection diseases monoclonal Antibodies.

UNIT-V Autoimmune diseases. Hemolytic anemia. Rheumatoid arthritis. Insulin dependent diabetes. Myasthenia gravis. Organ transplantation. Immunodeficient diseases. Cancers. AIDS.

PRACTICAL

EXPERIMENTS

Plant :

- 1 Sterilization of plant materials.
- 2 Preparation of Tissue culture media.
- 3 Plant tissue culture by plant parts.

Environment :

- 1 Determination of total dissolved solids of water.
- 2 Determination of DO, BOD, COD of water.
- 3 MPN Test.

Industrial :

- 1 Food preservation techniques.
- 2 Application of biopesticides on microorganisms
- 3 Production of Citric acid by microorganisms.

Immunology :

- 1 Blood grouping in relation to Antigen Antibody interaction.
- 2 Rh factor determination.
- 3 Widal Test
- 4 VDRL Test.
- 5 Double diffusion experiment
- 6 ELISA Test

BIOTECHNOLOGY

Time : 4 HRS

MM-50

Scheme

Marks

- | | |
|---------------------------------|----|
| 1 Experiment based on Paper - I | |
| (i) Plant tissue culture | 08 |
| (ii) Environment / Industrial | 07 |

2	Experiment based on Paper - II	15
3	Spots 05 (based on paper I & II, at least two spots from each paper)	10
4	Viva-voce	05
5	Sessional	05
	Total	50

BOOKS -

1. A test Book of Biotechnology : Indu Shekher Thakur - I.K. International Pvt. Ltd., New Delhi.
2. Biotechnology (Fundamentals and Applications) : S.S. Purohit - Agrobios (India), Jodhpur.
3. Fundamentals of Microbiology and Immunology : Ajit Kr. Banerjee, Nirmalya Banerjee - New central Book Agency (P) Ltd., Kolkata.
4. Plant Biotechnology : R.S. Chawla - Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi.
5. Plant Biotechnology : B.D. Singh - Kalyani Publication, New Delhi.
6. Biotechnology : Fundamental & Application : S.S. Purohit
7. Immunology : J. Kubey et al.
8. Immunology : Roitt et al.
9. Fundamental of Immunology : W. Paul.
10. Plant Tissue culture : Rojgov
11. Plant Tissue Culture (Practical) : H.S. Chawla.

BIOCHEMISTRY

PAPER - I

MOLECULAR BIOLOGY

UNIT-I BASIC CONCEPTS OF GENETIC INFORMATION

- a Nucleic acids as genetic information carriers, experimental evidence e.g. bacterial genetic transformation, Hershey - Chase Experiment, TMV reconstitution experiment.
- b Central dogma of molecular genetics - current version, reverse transcription and retroviruses.
- c Primary structure of nucleic acids and their properties, silent features of eukaryotic, prokaryotic and viral genome; highly repetitive, moderately repetitive and unique DNA sequences.
- d Basic concepts about the secondary structures of nucleic acids, 5' 3' direction antiparallel strands, base composition, base equivalence, base pairing and base stacking in DNA molecule. and buoyant density and their.

UNIT-II STRUCTURAL LEVELS OF NUCLEIC ACIDS AND SEQUENCING

- a Secondary and tertiary structure of DNA : Watson and Crick model, A.B. and Z types of DNA major and minor grooves, chirality of DNA, tertiary structure of DNA.
- b Structure and properties of RNA; Classes of RNA secondary and tertiary structures.
- c Nucleic acid hybridization : Cot value and satellite DNA.
- d Sequencing : Restriction and modification system; sequencing of DNA and RNA.

UNIT-III a DNA REPLICATION

DNA replication in prokaryotes - conservative, semi conservative and dispersive types, experimental evidence for semi conservative replication. DNA polymerases, other enzymes and protein factors involved in replication. Mechanism of replication. Inhibitors of DNA replication.

b TRANSCRIPTION

Transcription in prokaryotes RNA polymerase, promoters, initiation, elongation and termination of RNA synthesis, inhibitors of transcription. Reverse transcriptase, post transcriptional processing of RNA in eukaryotes.

UNIT-IV TRANSLATION AND REGULATION OF GENE EXPRESSION

- a Genetic code : Basic feature of genetic code, biological significance of degeneracy. Wobble hypothesis, gene within genes and overlapping genes.
- b Mechanism of translation : Ribosome structure, A and P sites, charged tRNA, formyl-tRNA initiator codon, Shine Dalgarno consensus sequence (AGGA), formation of 70S initiation complex, role of EF-Tu, EF-Ts, EF-G and GTP, nonsense codons and release factors RF 1 and RF 2.
- c Regulation of gene Expression in prokaryotes : Enzyme induction and repression,

operon concepts, Lac operon, Trp operon.

UNIT-V MUTATION AND REPAIR

- a Mutation : Molecular basis of mutation, types of mutation, e.g. transition, transversion frame shift, insertion, deletion, suppresser sensitive, germinal and somatic, backward and forward mutations, true reversion and suppression, dominant and recessive mutation, spontaneous and induced mutations = Lederberg's replica plating experiment.
- b Mutagenicity testing : Correlation of mutagenicity and carcinogenicity : Ames testing, Random and site directed mutagenesis.
- c DNA Repair : UV repair system in E.Coli, Significance of thymine in DNA.

RECOMBINATION AND TECHNOLOGY

Restriction endonucleases, brief discussion of steps in DNA cloning. Application of recombinant DNA technology.

Books :

- 1 Biochemistry J David Rawn, Neil Patterson Publisher, North Carolina.
- 2 Molecular biology of the gene JD Watson, NH Hopkins, JW Robert, JP Stretz, AM Weiner, Freeman San Francisco.
- 3 Fundamental of biochemistry by D Voet and CW Pratt, John Wiley & Sons, NY.
- 4 Text book of biochemistry Thomas M Devin, John Weley & Sons, NY.

PAPER - II

NUTRITIONAL, CLINICAL & ENVIRONMENTAL BIOCHEMISTRY

M.M. -50

UNIT-I NUTRITIONAL BIOCHEMISTRY

Nutrition and dietary habits

- a Introduction and definition of foods and nutritiori. Factors detemining food acceptance, physiological, energy, body building (growth and development). Regulation of body temperature. Physiology and nutrition of carbohydrates, fats, proteins and water. Vitamins A,D,E,K, Vit B-Complex and Vit C and minerals like Ca, Fe and Iodine and their biological functions. Basic food groups : energy giving foods, body building foods and protective foods.
- b Composition of balanced diet, recommended dietary allowances (RDA) for average indian, locally available foods, inexpensive quality foods and food stuff's rich in mor ethan one nutrients. Balanced vegetarian diet, emphasis on nutritional adequacy.

UNIT-II NUTRITATIVE AND CALORIFIC VALUES OF FOODS

- a Basic concepts of energy expenditure, units of energy, measurement of energy expenditure by direct or indirect calorimetry, calculation of non protein RQ with respect to carbohydrates and lipids. Determination of heat production of the diet. The basal metabolism and method of measuring basal metabolic rate (BMR),

energy requirements during growth, pregnancy, lactation and various physiological activities. Calculation of energy expenditure of average man and women.

- b Specific dynamic action (SDA) of foods, nutritive value of various kinds of foods generally used by Indian population. Planning of dietary regimes for infants, during pregnancy and old age. Malnutrition, its implications and relationship with dietary habits and prevention of malnutrition specially protein-calories malnutrition (Kwashiorkor and Marasmus) by improvements of diets. Human milk and its virtues, breast vs formulated milk feeding. Food preservation standards, food adulterations and precautions, government regulations on preservation and quality of food.

UNIT-III CLINICAL BIOCHEMISTRY

i Basic concepts of clinical biochemistry

- a Definition and scope of clinical biochemistry in diagnosis, a brief review of units and abbreviation used in expression concentration and standard solutions. Quality control. Manual vs automation in clinical laboratory.
- b Collection and preservation of biological fluids (blood, serum, plasma, urine and CSF) Chemical analysis of blood, urine and CSF. Normal values for important constituents (in SI units) in blood (plasma / serum), CSF and urine, clearance test for urea.

UNIT-IV ii CLINICAL ENZYMOLOGY

- a Definition of functional and non-functional plasma enzymes. Isozymes and diagnostics Tests. Enzymes pattern in health and diseases with special mention of plasma lipase, amylase, cholinesterase, alkaline and acid phosphatase, SGOT, SGPT, LDH and CPK.
- b Functional tests of kidney, liver and gastric fluids.
- (ii) Hypo and hyper-glycemia, glycogen storage diseases, lipid mal-absorption and steatorrhea, sphingolipidosis, role of lipoproteins. Inborn errors of amino acid metabolism alkaptonuria, phenyl-ketonuria, albinism, gout and hyper-uricemia.

UNIT-V ENVIRONMENTAL BIOCHEMISTRY

- (i) **Air pollution** : Particulate matter, compounds of carbon, sulphur, nitrogen and their interactions, methods of their estimation, their effect on atmosphere.
- (ii) **Water pollution** : Types of water bodies and their general characteristic, major pollutants in domestic, agricultural and industrial wastes, methods of their estimation, effects of pollutants on plants and animals, treatment of domestic and industrial wastes, solid-wastes and their treatment.

Books :

- 1 Modern nutrition in health and disease by Whol and Goodhart.
- 2 Human nutrition and Dietetics-S. Davidson and Passmore-ELBS Zurich.
- 3 Tietz fundamental of clinical Chemistry by Carl A Burits & ER Ashwood Saunders WB Co.
- 4 Lecture Notes on Clinical Biochemistry-IG Whitby, AF Smith, GJ Beckett.

PRACTICAL FOR IIIrd YEAR

LABORATORY - III (BCH 305)

1. Estimation of DNA by diphenylamine method.
2. Effect of temperature on the viscosity of DNA using Ostwald's Viscometer.
3. Extraction of RNA and its estimation by Orcinol method.
4. Estimation of hemoglobin by measuring total iron in blood.
5. Estimation of calcium and phosphorus in serum & urine.
6. Estimation of creatine and creatinine in urine.
7. Estimation of immunoglobulins by precipitation with saturated ammonium sulphate.
8. Denaturation of enzyme, studies on DNA.
9.
 - a. Separation of proteins by column chromatography.
 - b. Determination of proteins by dye binding assay.
10. Separation of proteins by SDS-polyacrylamide gel electrophoresis.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SYLLABUS

DIPLOMA IN COMPUTER APPLICATION (DCA)

Structure & Syllabi for One Year DCA Programme

1. The title of the programme is “Diploma in Computer Application” (DCA) and introduced from the academic year 2014-15.
2. **Objectives:** The objectives of the Programme shall be to provide sound academic base for proceeding career in Computer Application.
3. **Eligibility for admission:** In order to be eligible for admission to DCA a candidate must be (10+2) with minimum 40% marks in aggregate.
4. **Duration:** The duration of the DCA Programme shall be one year.
5. **The scheme of Examinations:** The DCA Examination will be of 800 marks as given Below:
 - i. Theory Papers: 600 marks
 - ii. Practical Papers: 200 marks
6. **The Standard of Passing and Award of Class**

In order to pass in the examination the candidate has to obtain 33% marks out of 100. (Minimum 33% marks must be obtained separately in theoretical papers as well as practical papers of University Examination).

The class/division will be awarded on the basis of aggregate marks obtained by the candidate for examinations.
7. The Medium of Instruction and Examination (Written and Viva) shall be English/Hindi.
8. **Instructions to Paper Setters:**
 - a. In each theory paper, six questions are to be set and paper has maximum 100 marks. Question paper should be in English as well as Hindi.
 - b. Question No. 1 should be compulsory and cover the entire syllabus. This question should have objective or short answer type questions. It should be of 30 marks.
 - c. Apart from Question No. 1, rest of the paper shall consist of five units as per the syllabus. Every unit should have two questions. However, student may be asked to attempt only 1 question from each unit. Each question should be 14 marks.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SYLLABUS

DIPLOMA IN COMPUTER APPLICATION (DCA)

SCHEME OF EXAMINATION FOR ONE YEAR DCA PROGRAMME

w.e.f. Session 2017-18

Paper No.	Title of the Paper/s	Term End Examination	Total Maximum Marks	Minimum Passing Marks in Term End Examination
		Maximum marks		
I	Fundamentals of Computers	100	100	33
II	Windows & PC Packages	100	100	33
III	Print Technology and Desktop Publishing	100	100	33
IV	Internet and Web Technology	100	100	33
V	Programming in C	100	100	33
VI	Introduction to Operating System	100	100	33
VII	LAB-I PC Package and DTP Lab	100	100	33
VIII	LAB-II Programming in C Lab	100	100	33
		Total Marks	800	



PAPER-I

FUNDAMENTALS OF COMPUTERS

UNIT-1

Brief History of Development of Computers ,Computer System Concept, Computer System Characteristics ,Capabilities and Limitations, Types of Computers-.,Personal Computer (PCs) - IBM PCs, Types of PCs- Desktop, Laptop, Notebook, Palmtop, etc. Computer organization: Basic Component of Computer system - Control Unit, ALU, I/O, Memory.

UNIT-II

Input Devices :Keyboard, Mouse, Joystick, Scanners, Digital Camera, MICR, OCR, OMR, Light pen, Touch Screen, Voice Recognition, Bar Code Reader, Output Devices Monitors - Characteristics and types of monitor, Size, Resolution, Refresh Rate, Dot Pitch, Video Standard - VGA, SVGA, XGA etc. Printers: Impact and Non Impact Printers, Daisy wheel, Dot Matrix, Inkjet, Laser. Plotter, Sound Card and Speakers.

UNIT-III

Bytes and Addressable Memory, Memory Sizes, Types of Memory: RAM, Cache, ROM, Flash Memory, CMOS, Memory Access Times, Expansion Slots And Adapter Cards, Removable Flash Memory, Ports And Connectors: USB Ports, FireWire Ports, Buses, Storage: Characteristics of a Hard Disk, RAID, NAS, External and Removable Hard Disks, Miniature Hard Disks, USB Flash Drives, Cloud Storage, Optical Discs: CDs, DVDs.

UNIT-IV

Software – Definition, Types of Software- System Software, Application Software, System Software- Operating System, Language Translator(Compiler, Interpreter), Utility Programs. Operating system- Definition, Function, Types of operating system- Batch Processing, Multiprogramming, Time Sharing Operating System, Multiuser, Multitasking, Multiprocessing Operating System.

UNIT-V

Network- Direction of Transmissions Flow-Simplex, Half Duplex Full Duplex, Types of Network-LAN, WAN, MAN etc. Topologies of LAN-Ring, Bus, Star, Mesh and Tree topologies. Computer Virus: Virus working principals, Types of viruses, Virus detection and Prevention Viruses on network, Antivirus software's.

Text Books: 1. Fundamentals of Computers, P. K. Sinha, BPB.

2. Fundamental of Computers, Raja Raman V. Prentice Hall of India, New Delhi.

3. Introduction to Computers, Norton, Peter, McGraw Hill.

4. Computer Fundamentals, B. Ram, New Age International Pvt. Ltd.

5. Fundamental of Computer & IT, S.Jaiswal, Wiley dreamtech India.

References: 1. A+ Certification All-in-One Desk Reference for Dummies, G. Clarke

1. IBM PC & Clones: Hardware Trouble Shooting and Maintenance, B.Govindarajalu



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SYLLABUS

DIPLOMA IN COMPUTER APPLICATION (DCA)

PAPER-II

WINDOWS & PC PACKAGES

UNIT-I

Disk Operating System (DOS) and MS Windows 7: Introduction, History & Versions of DOS, DOS System Files. DOS Commands: Internal and External, Executable V/s Non Executable Files in DOS; **MS Windows 7:** Introduction to MS Windows; Features of Windows; Various versions of Windows & its use; Working with Windows; My Computer & Recycle bin ; Desktop, Icons and Windows Explorer; Screen description & working styles of Windows; Dialog Boxes & Toolbars; Working with Files & Folders; simple operations like copy, delete, moving of files and folders from one drive to another, Shortcuts & Autostarts; Accessories and Windows Settings using Control Panel- setting common devices using control panel, modem, printers, audio, network, fonts, creating users, internet settings, Start button & Program lists; Installing and Uninstalling new Hardware & Software program on your computer.

UNIT-II

MS Word 2007: Introduction to MS Office, Introduction to MS Word, Features & area of use. Working with MS Word, , Creating a New Document, Different Page Views and layouts, Applying various Text Enhancements, Working with -Styles, Text Attributes, Paragraph and Page Formatting, Text Editing using various features ; Bullets, Numbering, Auto formatting, Printing & various print options.

UNIT-III

Advanced Features of MS-Word 2007 : Spell Check, Thesaurus, Find & Replace; Headers & Footers, Inserting - Page Numbers, Pictures, Files, Autotexts, Symbols etc., Working with Columns, Tabs & Indents, Creation & Working with Tables including conversion to and from text, Margins & Space management in Document, Adding References and Graphics, Mail Merge, Envelops & Mailing Labels. Importing and exporting to and from various formats.

UNIT-IV

MS Excel 2007: Introduction and area of use, Working with MS Excel, concepts of Workbook & Worksheets, Various Data Types, Using different features with Data, Cell and Texts, Inserting, Removing & Resizing of Columns & Rows, Working with Data & Ranges, Different Views of Worksheets, Column Freezing, Labels, Hiding, Splitting etc., Using different features with Data and Text; Use of Formulas, Calculations & Functions, Cell Formatting including Borders & Shading, Working with Different Chart Types; Printing of Workbook & Worksheets with various options.

UNIT-V

MS PowerPoint 2007: Introduction & area of use, Working with MS PowerPoint, Creating a New Presentation, Working with Presentation, Using Wizards; Slides & its different views, Inserting, Deleting and Copying of Slides; Working with Notes, Handouts, Columns & Lists, Adding Graphics, Sounds and Movies to a Slide; Working with PowerPoint Objects, Designing & Presentation of a Slide Show, Printing Presentations, Notes, Handouts with print options.

Text Books: 1. Comdex Computer Course Kit (windows 7 with office 2010), Gupta Vikas, Dreamtech Publication 2. Mastering MS Office 2000, Professional Edition by Courter, BPB Publication. 3. MS Office 2000 Training Guide by Maria, BPB Publications. 4. MS Office complete by SYBEX. 5. PC Software Made Simple, Taxali, BPB.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SYLLABUS

DIPLOMA IN COMPUTER APPLICATION (DCA)

PAPER-III

PRINT TECHNOLOGY AND DESKTOP PUBLISHING

UNIT-I

Print Technology: Introductions to Printing, Types of Printers, Inkjet and DM Printer, Screen Printing, Offset Printing, Working of offset Printing, Transparent Printout, Negative & Positives for Plate were making, Laser printers - Use, Types, Advantage of laser printer in publication.

UNIT-II

Page Maker: Page Maker Icon and help, Tool Box, Styles, Menus etc., Different screen Views, Importing text/Pictures, Auto Flow, Columns, Master Pages and Stories, Story Editor, Menu Commands and short-cut commands, Spell check, Find & Replace, Import Export etc., Fonts, Points Sizes, Spacing etc., Installing Printers, Scaling (Percentages), Printer setup Use of D.T.P. in Advertisements, Books & Magazines, News Paper, Table Editor.

UNIT-III

Adobe Photoshop: Adobe Photoshop CS4: Menus and panels, Exploring the Toolbox, Working with Images: Working with Multiple Images, Rulers, Guides & Grids, Image Size Command, Adjusting Canvas Size & Canvas Rotation, Creating, Selecting, Linking & Deleting Layers, Painting with Selections, Red Eye Tool, Clone Stamp Tool, Color creation, Quick Mask Options, Creating Straight & Curved Paths, Creating Special Effects.

UNIT-IV

CorelDraw X4: CorelDraw X4 Command Bars & Tools, Drawing Area-Objects-Lines, Working with Text & Artistic Media Tool, Fills & Modifying Outlines, Drop Shadows, Importing and Editing OCR Text, Templates, Drawing and Editing Curves and Lines, Three-point Tools, Clipart, Special Characters and Creating Symbols, Working with Layers & Creating a Master Layer, Brush Tools and Adding Objects, Interactive Tools, PowerClip Feature and the Envelope Tool.

UNIT-V

Other Work in DTP: Scanning, Type of Scanner, Importing image, text from scanner, ABBY fine reader, Acrobat (PDF) to Word, and Word to PDF, PDF Editor, PDF Annotator, PDF Infix, Voice to word conversion.

- Text Books:**
1. How to Do Everything Adobe Photoshop CS4, Chad Perkins, TMH
 2. Desktop Publishing Software: Adobe Creative Suite, Adobe Frame Maker, Adobe Indesign, Adobe PageMaker, Altsoft Xml2pdf, Bookmaking Software; Uni.press.org
 3. Specifications of Adobe PageMaker (Paperback); Cede Publishing
 4. Adobe Pagemaker 7.0 Inver 1st Edition, Kevin G. Proot, Ceneage Learning Pvt Ltd.
 5. Corel Draw X4: The Official Guide, (Paperback), Gary David Bouton, TMH

- Reference Books:**
1. Corel DRAW X4, Deborah Miller, Pearson Education
 2. Photoshop CS4 Quicksteps, Carole Matthews & Gary David Bouton, TMH



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SYLLABUS

DIPLOMA IN COMPUTER APPLICATION (DCA)

PAPER-IV

INTERNET AND WEB TECHNOLOGY

UNIT-I

Applications of Internet, History of Internet, WWW, Various Services , World Wide Web (WWW) History, Working, Web Browsers, Its function Concept of Search Engines, client server architecture

UNIT-II

Internet : Evolution, Protocols, Interface Concepts, Internet Vs Internet, Growth of Internet, ISP, Connectivity - Dial-up, Leased line, VSAT etc., URLs, Domain names, Portals, Applications.

E-Mail: Concepts, Basics of Sending & Receiving, E-mail, Free E-mail services.

UNIT-III

Transfer Protocols, Telnet & Chatting, Client/Server Architecture Characteristic, FTP & its usages. Telnet Concept, Remote Logging, Protocols, Internet chatting - Voice chat, text chat.

UNIT-IV

Searching the Web, HTTP, URLs, Web Servers, Web Protocols. Web Publishing Concepts, Domain Name Registration, HTML, Design Tools, HTML Editors, Image Editors.

UNIT-V

HTML Concepts of Hypertext, Versions of HTML, Elements of HTML Syntax, Head & Body Sections, Building HTML Documents, Inserting Texts, Images, Hyperlinks, Backgrounds And Colour Controls, Different HTML Tags, Table Layout and Presentation, Use of Font Size & Attributes, List types and its Tags.

Text Books:

1. Computer Networks, Andrew S. Tanenbaum, PHI / Pearson Education Inc.,
2. Computer Networking: A Top-Down Approach Featuring the Internet, James F. Kurose, Keith W. Ross, Pearson Education Inc., New Delhi.
3. Introduction to Data Communications and Networking, Wayne Tomasi, Pearson Edu
4. Data Communications and Networking, Curt White, CENGAGE Learning Pvt. Ltd.
5. Computer Networks, L. L. Peterson & B. S. Davie, Elsevier Inc,
6. Data Communication and Networking, Behrouz A. Forouzan, Tata McGraw-Hill.

References: 1. Data & Computer Communication, Black, PHI.

2. Data and Computer Communication, William Stallings, Pearson Education.
3. Computer and Communication Networks, Nader F. Mir, Pearson Education, 2007.
4. Communication Networks, Walrand, TMH.
5. Internetworking with TCP/IP, Douglas E. Comer, Prentice Hall India.
6. Computer Networks: Principles, Technologies and Protocols, Natalia Olifer & Victor Olifer, Wiley India Pvt. Ltd., New Delhi.



PAPER-V
PROGRAMMING IN 'C'

UNIT-I

C Language – Character set, Tokens of C - tokens-constant-keywords and identifiers - variables- data types- declaration and assignment of variables defining symbolic constants.- Operators and Expressions: Types of Operators- Arithmetic, Relational and Logical Operators Assignment, increment and decrement of operators - conditional bitwise and special operators - arithmetic expression and its evaluation - hierarchy of arithmetic operations - evaluations, precedence and associativity - mathematical functions.

UNIT-II

Control Branching and Decision-Making in C - If statement Switch statement - GOTO statement - The? : Operators. - Decision - Making and Looping, Types of Loop, nesting in a loop.

Arrays in C Single Two-dimensional and Multi-dimensional arrays. Handling of Character Set: Declaration & Initialization of string variables - reading from and writing to screen -Arithmetic operations - String handling functions.

UNIT-III

Functions: Definition, Library Functions User Defined Functions, Function Prototype, Function Definition, Function Call, Types of User Defined Functions, Arrays and Functions.

Structures and Unions: Definitions initialization and assigning values to members' arrays of structures and arrays within structures structure with in structure- unions - size of structures.

UNIT-IV

Declaration and initialization of pointers - pointer expression - pointer and arrays - pointer and character strings pointers and functions - pointers and structures pointer on pointers.

UNIT-V

File Maintenance in "C": Defining, Opening and closing a file - Input/Output operations on a file- random access to file - command line arguments.

Text Books:

1. Programming in "C" E Balgurusamy Tata mc Graw-Hill
2. The "C" Programming Language: Brian W. Kenigham & Dennis Ritchie
3. The Spirit of "C"- Henry Mulis
4. Let Us C, Yashwant Kanetkar, BPB



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SYLLABUS

DIPLOMA IN COMPUTER APPLICATION (DCA)

PAPER-VI

INTRODUCTION TO OPERATING SYSTEM

Unit – I

Introduction to Operating System

What is an Operating System, Operating Systems Architecture, Types of Operating Systems, Process Model, Process States and Transitions, System Calls.

Unit – II

Process Management

Processes: Process Scheduling, Cooperating Processes, Inter-process Communication, CPU Scheduling: Scheduling Criteria, Scheduling Algorithms, Process Synchronization: Background, Deadlocks.

Unit –III

Memory Management

Main Memory Management: Background, Logical versus Physical Address space, swapping, Contiguous allocation, Paging, Segmentation, Segmentation with Paging, Virtual Memory: Demand Paging.

Unit –IV

Device and Storage Management

File-System Interface, Mass-Storage Structure, Device Management: Techniques for Device Management, Dedicated Devices, Shared Devices, Buffering, Multiple Paths, Secondary-Storage Structure: Disk Structure, Disk Scheduling, Disk Management.

Unit –V

File-System Implementation

A Simple File System, Logical & Physical File System, File-System Interface: Access Methods, Directory Structure, Protection, Free-Space Management, Directory Implementation.

Text Books:

1. Operating System Concepts, Silberschatz and Galvin, Pearson Education Pub.
2. Operating Systems, Madnick E., Donovan J., Tata McGraw Hill,
3. Operating Systems, A. S. Tannenbaum, PHI

Reference Books:

1. Operating Systems Internals and Design Principle, William Stallings, Prentice Hall Publishers
2. Operating Systems - A Concept Based Approach, Dhananjay M. Dhamdhare, TMH



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SYLLABUS

DIPLOMA IN COMPUTER APPLICATION (DCA)

PAPER-VII

LAB-I

PC PACKAGE AND DTP LAB

Note: - Practical should cover syllabus of respected theoretical papers.

The break-up of marks for Practical will be as under :			
Sr. No.	Argument	Maximum Marks	Minimum Passing Marks
1.	Lab Record	20	
2.	Viva-voce	30	
3.	Program Development and Execution	50	
Total Marks		100	33

PAPER-VIII

LAB-II

PROGRAMMING IN C LAB

Note: - Practical should cover syllabus of respected theoretical papers.

The break-up of marks for Practical will be as under :			
Sr. No.	Argument	Maximum Marks	Minimum Passing Marks
1.	Lab Record	20	
2.	Viva-voce	30	
3.	Program Development and Execution	50	
Total Marks		100	33



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
M.A. ENGLISH

SCHEME OF EXAMINATION & DISTRIBUTION OF MARKS

SEMESTER - I

Paper No.	Title of the Paper (s)	Internal Assessment	Term End Exam	Total Marks
1.	Poetry -I (From Chaucer To Blake)	20	80	100
2.	Drama -I	20	80	100
3.	Prose	20	80	100
4.	Fiction	20	80	100

SEMESTER - II

Paper No.	Title of the Paper (s)	Internal Assessment	Term End Exam	Total Marks
1.	Poetry -II	20	80	100
2.	Drama- II	20	80	100
3.	Modern Literature (Poetry and Prose)	20	80	100
4.	Fiction And Short Stories	20	80	100

SEMESTER - III

Paper No.	Title of the Paper (s)	Internal Assessment	Term End Exam	Total Marks
1.	Critical Theory	20	80	100
2.	Indian Literature	20	80	100
3.	American Literature	20	80	100
4.	Optional (Any one) 1. History of English Literature 2. Linguistics	20	80	100

SEMESTER - IV

Paper No.	Title of the Paper (s)	Internal Assessment	Term End Exam	Total Marks
1.	Literature in Translation	20	80	100
2.	Diaspora and Dalit Literature	20	80	100
3.	World Literature	20	80	100
4.	Optional (Any one) 1. Colonial and Post Colonial Literature 2. Gender Studies	20	80	100



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
M.A. ENGLISH

SEMESTER I
PAPER - I
POETRY

(FROM CHAUCER TO BLAKE)

UNIT - I

Annotations from the detailed text six (6) to be asked three (3) to be attempted.

UNIT - II

Chaucer - The Prologue to Canterbury Tales (D)

John Milton - Paradise Lost Book I

UNIT - III

Dryden - Mac Flecknoe

Alexander Pope - Rape of the Lock

UNIT - IV

Gray - Elegy written in the Country Church Yard, Progress of Poesy

(D) Blake - Songs of Innocence, Songs of Experience.

UNIT - V

Shakespeare - Sonnet (No. 18, 26, 60, 116)

Dante - Good Morrow, Valediction, Forbidden Mourning. (D)

NOTE

1. The Question Paper will comprise of two sections. Section A and section B.
2. There will be objective questions covering the entire units/ contents of the paper. The number of questions will be 10 each of one mark.
3. There will be 5 short answer type questions each of two marks.
4. In section B there will be descriptive answer type questions from unit II to V of equal marks (12 for each questions) with 50% internal choice.
5. The first questions of section B will comprise of annotations from the detailed text (D) mentioned in syllabus. 6 passages for annotations to be asked and 3 to be attempted.

Recommended Books:

1. English Satire and Satirist - Hugh worker
2. English Literature of Eighteenth Century - Banancy Doluce
3. Paradise Lost and 17th Century Reader - B. Rajan
4. From Virgil to Milton - C.M. Bowra
5. A Glossary of Literary Terms - Abrams.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
M.A. ENGLISH

SEMESTER I
PAPER – II
DRAMA

UNIT – I

Annotations from the detailed text six (6) to be asked (3) three to be Attempted.

UNIT – II

Marlowe – Dr. Faustus (D)

Shakespeare – Macbeth

UNIT – III

Shakespeare – Tempest (D)

Shakespeare – Twelfth Night

UNIT – IV

John Milton – Samson Agonistis

Ben Johnson – Every Man in his Human

UNIT – V

John Webster – Duchess of Malfi (D)

W. Congreve – Way of the World

NOTE:

1. The Question Paper will comprise of two sections Section A and section B.
2. There will be objective questions covering the entire units/contents of the paper. The number of questions will be 10 each of one mark.
3. There will be 5 short answer type questions each of two marks.
4. In section B there will be descriptive answer type questions from unit II to V of equal marks (12 for each questions) with 50% internal choice.
- ✓ 5. The first questions of section B will comprise of annotations from the detailed text (D) mentioned in syllabus. 6 Passages for annotations to be asked and 3 to be attempted

Recommended Books:

1. Shakespeare's Historical Plays – S.C. Sengupta
2. History of English Drama – Hudson
3. Shakespearean tragedy – A.C. Bradely
4. Theory of Drama – Nicoll
5. The Essential Shakespeare – G. Wilson Knight
6. A Glossary of Literary teims – M.H Abrams



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
M.A. ENGLISH

SEMESTER I
PAPER – III
PROSE

UNIT – I

Annotations from the detailed text six (6) to be asked (3) three to be attempted

UNIT – II

Francis Bacon – Of youth & age, Of Ambition of Death. (D) John Milton – Areopagi Aewpagitica

UNIT – III

James Boswell – Life of Samuel Johnson
Joseph Addison – Coverley papers, Sir Roger at church. (D)
The Spectators account of himself. (D)

UNIT – IV

Thomas Carlyle – The Hero as a Poet
Charles Lamb – 1. Bachelor's complaint on the Behavior of Married people. (D)
2. Christ Hospital. (D)

UNIT – V

R.L. Stevenson 1. EL Dorado
2. Walking Tours
Hazlitt 1. On Actors and Acting
2. On Going to a Journey

NOTE:

1. The Question Paper will comprise of two sections. Section A and section B.
2. There will be objective questions covering the entire units/ contents of the paper. The number of questions will be 10 each of one mark.
3. There will be 5 short answer type questions each of two marks.
4. In section B there will be descriptive answer type questions from unit II to V of equal marks (12 for each questions) with 50% internal choice.
5. The first questions of section B will comprise of annotations from the detailed text (D) mentioned in syllabus. 6 passages for annotations to be asked and 3 be attempted

Recommended Books:

1. Gross, John (Ed) The oxford book 6 Essay 1991.
2. Scholes. Roberts & Klaus, Carl H-Elements 6 Essay 1969.
3. English Prose: Anthology of English Essays, Short Stories Delhi OUP 1988.
4. Bacon's Essays: Sukanta Chowdhary
5. A Glossary of Literary Terms - M.H Abrams



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
M.A. ENGLISH

SEMESTER I
PAPER – IV
FICTION

UNIT – I

Samuel Richardson – Pamela
Henry Fielding Tom – Jones

UNIT – II

Daniel Defoe – Robinson Crusoe
Charles Dickens – Great Expectations

UNIT – III

Jane Austen – Emma
M. M. Thackeray – Vanity Fair

UNIT – IV Hardy

* Thomas Hardy – Return of the Native
Virginia Woolf – Dalloway

NOTE:

1. The Question Paper will comprise of two sections: Section A and Section B.
2. There will be objective questions covering the entire units/contents of the Paper. The number of questions will be 10 each of one mark.
3. There will be 5 short answer type questions each of two marks.
4. In section B there will be descriptive answer type questions from unit I to IV Of equal marks (15 for each questions) with 50% internal choice.

Recommended Books:

1. The English Novel – Walter Allen
2. History of English Novel – Earnest Baker
3. Representative English Novels : McCullough Bruce



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS

M.A. ENGLISH

SEMESTER II

PAPER - I

POETRY-II

UNIT - I

Annotations from the detailed text six (6) to be asked three (3) to be attempted.

UNIT - II

William Wordsworth - Tintern Abby, (D)

S.T. Coleridge- Rime of Ancient Mariner

UNIT - III

W.B. Shelley - Adonais

John Keats - Ode to a Nightingale (D)

Ode on a Grecian urn (D)

UNIT - IV

Byron - She walks in Beauty,

When we two parted

Alfred Tennyson - Lotus Eaters, Ulysses

UNIT - V

Robert Browning - Prospice (D)

The last Ride together (D)

Mathew Arnold - Dover Beach, Scholar Gypsy

NOTE:

1. The Question Paper will comprise of two sections. Section A and section B.
2. There will be objective questions covering the entire units/contents of the paper. The number of questions will be 10 each of one mark.
3. There will be 5 short answer type questions each of two marks.
4. In section B there will be descriptive answer type questions from unit II to V of equal marks (12 for each questions) with 50% internal choice.
5. The first questions of section B will comprise of annotations from the detailed text (D) mentioned in syllabus. Passages for annotations to be asked and 3 to be attempted.

Recommended Books:

1. Desmond King - Helle - Shelley - His Thought and work, McMillan London.
2. Graham Hough - The last Romantic
3. Humpry House - Coleridge
4. C.M. Bowra - The Romantic Imagination.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
M.A. ENGLISH

SEMESTER II
PAPER – II
DRAMA-II

UNIT – I

Annotations from the detailed text six (6) to be asked three (3) to be attempted

UNIT – II

Oliver Goldsmith – She stoops to conquer
R.B. Sheridan - The School for scandal (D)

UNIT – III

G.B. Shaw – Arms and the Man (D)
Galsworthy – Justice

UNIT – IV

T.S. Eliot – Murder in the Cathedral
John Osborne - Look back in Anger

UNIT – V

Henrik Ibsen – A Dolls House (D)
Brecht - Mother Courage and her Children

NOTE:

1. The Question Paper will comprise of two sections. Section A and section B.
2. There will be objective questions covering the entire units/contents of the paper.
The number of questions will be 10 each of one mark.
3. There will be 5 short answer type questions each of two marks.
4. In section B there will be descriptive answer type questions from unit II to V of equal marks (12 for each questions) with 50% internal choice.
5. The first questions of section B will comprise of annotations from the detailed text (D) mentioned in syllabus: 6 passages for annotations to be asked and 3 to be attempted.

Recommended Books :

1. Raymond Williams : Drama from Ibsen to Eliot
2. Allardyce Nicols – British Drama
3. Raynond Williams : Drama from Ibsen to Brecht
4. David Clark : Twentieth Century Interpretation of Murder in the Cathedral



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
M.A. ENGLISH

SEMESTER II

PAPER- III

MODERN LITERATURE (POETRY & PROSE)

UNIT - I

Annotations from the detailed text six (6) to be asked three (3) to be attempted.

UNIT - II

W.B. Yeats – Sailing to Byzantium, (D), The Second coming, (D)

G.M. Hopkins – God's Grandeur, Pied beauty, The sea and The sky lark, The Wind Hover

UNIT - III

T.S. Eliot – The waste land, W.H. Auden - In memory of W.B. Yeats, (D)

UNIT - IV

Robert Lynd – Back to the desk, (D), Forgetting, (D), A.G. Gardiner – On the Rule of Road, On saying please.

UNIT - V

G. J.K. Chesterton – On running after one's hat patriotism and sports. Hillaric Belloc – On Preserving English, On Books

NOTE:

1. The Question Paper will comprise of two sections. Section A and section B.
2. There will be objective questions covering the entire unit/ contents of the paper. The number of questions each of two marks.
3. There will be 5 short answer type questions each of two marks.
4. In section B there will be descriptive answer type questions from unit II to V of equal marks (12 for each questions) with 50% internal choice.
5. The first question of section B will comprise of annotations from the detailed text (D) mentioned in syllabus. 6 passages for annotation to be asked and 3 to be attempted

Recommended Books:

1. A.G. Gardiner: Selected Essays: R.P. Tiwari (Ed)
2. The English Essays and Essayist – Hugh Walker.
3. A Manual of English Prose : Minto



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
M.A. ENGLISH

SEMESTER II
PAPER – IV
FICTION AND SHORT STORIES

UNIT – I

James Joyce – Portrait of the Artist as a young man
D.H. Lawrence – Sons and Lovers.

UNIT – II

E.M. Forster – Passage to India
Joseph Conrad – Heart of Darkness

UNIT – III

Oscar Wilde – The Happy Prince, The Selfish giant
O Henry - The Gift of Magi, the Last Leaf.

UNIT – IV

Katherine Mansfield – A cup of Tea, the Fly
Anton Chekhov – The lady with the Dog, The Grass Hopper

NOTE:

1. The Question Paper will comprise of two sections. Section A and section B.
2. There will be objective questions covering the entire units/contents of the paper. The number of questions will be 10 each of one mark.
3. There will be 5 short answer type questions each of two marks.
4. In section B there will be descriptive answer type questions from unit I to IV of equal marks (15 for each questions) with 50% internal choice.

Recommended Books:

1. The English Novel from Dickens to Lawrence: William Raymond (1970)
2. Conrad's Heart of Darkness a critical and contextual Discussion: Cadric Walts



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
M.A. ENGLISH

SEMESTER III
PAPER- I
CRITICAL THEORY

UNIT- I

- A. Aristotle – The Poetics
- B. Bharat Muni – Natya Shastra

UNIT- II

- A. Wordsworth – Preface to Lyrical Ballads
- B. T.S. Eliot – Tradition and Individual Talent.

UNIT –III

- A. Ernest Jones: Hamlet, the Psychological Solution
- B. I.A. Richards – Two uses of language.

UNIT- IV

- A. Roland Barthes – The Death of the Author
- B. Edward Said – From Culture and Imperialism

NOTE:

1. The Question Paper will comprise of two sections. Section A and section B.
2. There will be objective questions covering the entire units/contents of the paper. The number of question will be 10 each of one mark.
3. There will be 5 short answer type questions each of two marks.
4. IN section B there will be descriptive answer type questions from unit I to IV of equal marks (15 for each questions) with 50% internal choice.

RECOMMENDED READING:

1. English Critical Texts by Euright and D chikera.
2. The critical tradition by David H. Richter (Bed Ford/St. Martins, Boston)
3. Five Approaches of Literary Criticous by Willbur Scitt (Collier Books New York)
4. Indian Aesthetics by C.S. Seturaman (Macmillian).
5. Practical Criticism by I.A. Richards (Allied Publishers, New Delhi)
6. S. Ramswamy and V.S. Sethruman eds. The English Critical Tradition, Volume II Delhi Macmillan 1977, For Jonthan Culler.
7. David lodge, ed. Modern criticism and Theory: A Reader London Longman 1988 for Ronald Barthes, Elaine Showlter.
8. David Lodge, ed. Twentieth Century Literary Criticism, London, Longman, 1972 for Northrop Frye, George Lukacs.
9. Phillip Rice and Patricia Waugh, Eds. A modern Literary Theory: A Reader Third edition. Arnold, 1999, for Ferdinand de Saussure, Stephe, Greenblatt, Edward said.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
M.A. ENGLISH

SEMESTER-III
Paper -II (COMPULSORY)
INDIAN LITERATURE

UNIT - I

Annotations from the detailed text six (6) to be asked three (3) to be attempted.

UNIT - II

1. Rabindranath Tagore – Gitanjali (1 to 10) (D)
2. Sri Aurobindo – Savitri Book I (canto 1)

UNIT - III

1. Sarojini Naidu – Broken Wing, (D)
Indian Weavers, (D)
Village song.(D)
2. Nissiem Ezekiel – Enterprise, Philosophy, Poet Lover, and Bird Watcher

UNIT - IV:

1. Rabindranath Tagore – Post office (D)
2. Girish karnad – Naga Mandala

UNIT - V:

1. M.R. Anand – Coolie
2. R. k. Narayan – Guide

NOTE:

1. The Question Paper will comprise of two sections. Section A and section B.
2. There will be objective questions covering the entire units' contents of the paper.
The number of questions will be 10 each of one mark.
3. There will be 5 short answer type questions each of two marks.
- ✓ 4. In section B there will be descriptive answer type questions from unit II to V of equal marks (12 for each questions) with 50% internal choice.
5. The first questions of section B will comprise of annotations from the detailed text (D) mentioned in syllabus. 6 Passages for annotations to be asked and 3 to be attempted.

RECOMMENDED READING:

1. Indian writing in English by K.R. Srinivas Iyengar (sterling New Delhi)
2. Modern Indo English Fiction by Dhawan R.K. (1982) New Delhi, Bhari Publication.
3. Dimensions ^ Indian English literature by Naik M.k. (1984) New Delhi Sterling Publisher.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
M.A. ENGLISH

SEMESTER III
PAPER- III
AMERICAN LITERATURE

UNIT - I

Annotations from the detailed text six to be asked three to be attempted.

UNIT - II

Poetry

- Walt Whitman – 1. I hear America Singing.
2. When lilacs last in the Dooryard Bloom'd.
- Robert Frost – 1. Mending Walls. (D)
2. Birches. (D)
3. Stopping by the Woods on a Snowy Evening. (D)

UNIT - III

Drama

- Arthur Miller – Death of a Salesman. (D)
Eugene O Neil – Emperor Jones

UNIT - IV

Prose

- Emerson – Self Reliance. (D)
Thoreau – Civil Disobedience

UNIT - V

Fiction

- Hemingway – Old Man and the Sea
William Faulkner – The Sound and the Fury.

NOTE:

1. The Question Paper will comprise of two sections. Section A and section B.
2. There will be objective questions covering the entire units' contents of the paper.
The number of questions will be 10 each of one mark.
3. There will be 5 short answer type questions each of two marks.
4. In section B there will be descriptive answer type questions from unit II to V of equal marks (12 for each questions) with 50% internal choice.
5. The first questions of section B will comprise of annotations from the detailed text (D mentioned in syllabus. 6 passages for annotations to be asked and to be attempted.

RECOMMENDED READING:

1. The cycle of American literature by Robert E. Spiller.
2. American literature by An Anthology by Oliver (S.Chand and Company New Delhi)
3. Modern American Literature – by A.A. Mutalik Desai & T.S. Anand.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
M.A. ENGLISH

SEMESTER III
PAPER – IV
(OPTIONAL)

1. HISTORY OF ENGLISH LITERATURE

UNIT – I

Elizabethan Age

UNIT – II

Neo Classical Age

UNIT – III

Romantic Age

UNIT – IV

Victorian Age

NOTE:

1. The question Paper will comprise of two sections. Section A and section B.
2. There will be objective questions covering the entire units/contents of the paper.
The number of question will be 10 each of one mark.
3. There will be 5 short answer type questions each of two marks.
4. In section B there will be descriptive answer type questions from unit I to IV of equal marks (15 for each questions) with 50% internal choice.

RECOMMENDED READING:

1. Rickett, AC History of English Literature New Delhi; U.BS 1998.
2. Evans, Ifor, A short History of English Literature Penguin, 1996.
3. Legouis & Cazamion History of English Literature, Macmillan India Ltd.1983.
4. Sampson, George. Concise Cambridge History of English Literature C.U.P. 1976



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
M.A. ENGLISH

SEMESTER III
PAPER -IV
(OPTIONAL)
2. LINGUISTICS

UNIT - I

History of English Language

UNIT - II

Linguistics: Definition, Nature and its Scope,
Branches of Linguistics, History of Linguistics,
Some Basic Concepts in Linguistics, (Synchrony and Diachrony)
Languages and Parole, Competence and Performance, Syntagmatic and
Paradigmatic relations Language and communication, Language Variation (Dialect,
Register, Style, Idiolect, Pidgin Creole) And Language Change.

UNIT - III

Phonetics and Phonology.
Phoneme, Allophone, Human Speech Mechanism
Vowels and Consonants in English
Syllable Structure, Supra-Segmental Features
G.E, Phonetic Transcription.

UNIT - IV

Morphology and Syntax: Morpheme,
Word Formation Processes in English,
Traditional Grammar, IC Analysis,
Phrase Structure grammar,
Transformation – Generative Grammar.

NOTE:

1. The Question Paper will comprise of two sections. Section A and section B.
2. There will be objective questions covering the entire units/contents of the paper.
The number of questions will be 10 each of one mark.
3. There will be 5 short answer type questions each of two marks.
4. In section b there will be descriptive answer type questions from unit I to IV of
equal marks (15 for each questions) with 50% internal choice.

Recommended Books

1. Abercrombie, D. Elements of general Phonetics (Edinburg university Press, 1967)
2. Balasubramaniam, T.A. Textbook of English Phonetics for Indian Students
(Macmillan 1981)



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
M.A. ENGLISH

3. Chomsky, Noam. Aspects of the Theory of Syntax (Cambridge, Mass : MIT Press, 1965)
4. Crystal, David, Linguistics (Penguin, 1971)
5. Hockett, C.F. A. Course on Modern Linguistics (New York : Macmillan, 1958)
6. Katamba, F. Morphology (Basingstoke : Macmillan, 1993)
7. Lyons J. 1968. Introduction to Theoretical Linguistics (CUP, 1981)
8. O' Connor, J.D. Phonetics (Penguin, 1973)
9. Robins, R.H. General Linguistics (Longman, 3rd Edition 1980)
10. Saussure, Ferdinand de. A Course in General Linguistics, Trans. Wade Baskin (New York: McGraw Hill.)
11. Verma S.K. and n. Krishnaswamy. Introduction to modern linguistics (OUP, 1993)



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
M.A. ENGLISH

SEMESTER IV
PAPER – I
LITERATURE IN TRANSLATION

Unit - I

Kalidas – Abhigyan Shakuntalam from the book (The loom of Life) Translated by Chandra Rajan.

Banabhatta – Kadambari

Unit - II

Tagore – The Home and the Word translated by Shri Surendra Nath Tagore

Amrita Pritam – Pinjar (The Skeleton) translated by Khushwant Singh.

(pinjar)

Unit - III

Premchand – Godan translated by Jai rattan and P. Lal

Mohan Rakesh- Aadhe Adhure

Unit - IV

Girish Karnad – “The Fire and the Rain

Vijay Tendulkar – Ghashiram Kotwal

NOTE:

1. The Question Paper will comprise of two sections. Section A and section B.
2. There will be objective questions covering the entire units/contents of the paper.
3. The number of questions will be 10 each of one mark.
4. There will be 5 short answer type questions each of two marks.
5. In section B there will be descriptive answer type questions from unit I to IV of equal marks (15 for each questions) with 50% internal choice.

Recommended Books:

1. Das, B. K. A Handbook of Translation Studies. New Delhi: Atlantic Publishers.
2. Munday, Jeremy, Introduction Translation Studies London: Rout ledge 2001.
3. Naikar, Basavaraj. Indian Literature in English Translation. Delhi: National Publishing House, 2004.
4. Encyclopaedia of Indian Literature. Vol. 1-6, New Delhi: Sahitya Academy.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
M.A. ENGLISH

SEMESTER IV
PAPER – II
DIASPORA AND DALIT LITERATURE

UNIT – I

V. S. Naipul – The House of Mr. Biswas
Amitav Ghosh – The Shadow Lines

UNIT – II

Bharti Mukherjee – Jasmine
Arundhati Roy – The God of Small Things

UNIT – III

Mulk Raj Anand – Untouchable
Vijay Tendulkar – Kanyadaan

UNIT – IV

U.R. Anand Murthy – Samskar
Om Valmiki – Jhootan

NOTE:

1. The Question Paper will comprise of two sections. Sections A and section B.
2. There will be objective questions covering the entire units/ contents of the paper.
The number of question will be 10 each of one mark.
3. There will be 5 short answer type questions each of two marks.
4. In section B (15 for each questions) with 50% internal choice.

Recommended Books:

1. K. Satyanarayan & Susie Tharu (ed). No Alphabet in sight: New Dalit Writing from South India. New Delhi: Penguin Books 2001.
2. R. Kumar Dalit Personal Narratives. New Delhi: Orient Sharmila Rege. Writing Caste: Writing Gender, Delhi: Ivban 2006.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
M.A. ENGLISH

SEMESTER IV
PAPER – III
WORLD LITERATURE

UNIT – I

Annotations from the detailed text 4 to be asked and 2 to be attempted.

UNIT – II

- | | | | |
|----|-------------------|----|--|
| 1. | Emily Dickenson - | 1. | I felt a funeral in my Brain. (D) |
| | | 2. | Success is counted sweetest. (D) |
| | | 3. | After great pain a formal feeling comes. (D) |
| 2. | Wallace Stevens - | 1. | Sunday morning. |
| | | 2. | Emperor of Ice cream |
| | | 3. | Vacancy in the park. |

UNIT – III

- | | | | |
|----|-------------|----|-------------------------|
| 1. | Toru Dutt - | 1. | Casuarina Tree (D) |
| | | 2. | Lakshman (D) |
| 2. | Kamla Das - | 1. | A Hot noon in Malabar |
| | | 2. | Nani |
| | | 3. | My Grand Mother's House |

UNIT – IV

- | | | |
|----|----------------------|---------------------------|
| 1. | Mahatma Gandhi - | My experiments with Truth |
| 2. | A.P.J. Abdul Kalam - | Wings of Fire. |

UNIT - V

- | | | |
|----|-------------------|-------------------|
| 1. | Benokri - | The Famished Road |
| 2. | Taslima Nasreen - | Lajja |

NOTE:

1. The Question Paper will comprise of two sections. Section A and section B.
2. There will be objective questions covering the entire units/ contents of the paper. The number if questions will be 10 each of one mark.
3. There will be 5 short answer type questions each of two marks.
4. In section B there will be descriptive answer type questions from unit II to V of equal marks (12 for each questions) with 50% internal choice.
5. The first questions of section B will comprise of annotations from the detailed text (D) mentioned in syllabus. 6 passages for annotations to be asked and 3 to be attempted

Recommended Books:

1. Dhavan, R.k. (Ed) Common wealth Literature Vol. – 4 New Delhi: Creative Books.
- Naikar, Bhasavaraj: Perspective on Common we alit literature, Jaipur: Book Enclave 2003.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
M.A. ENGLISH

SEMESTER IV

PAPER – IV

(OPTIONAL)

1. COLONIAL AND POST COLONIAL LITERATURE

UNIT – I

George Orwell – Animal Farm
Chinuae Achebe – Things fall apart.

UNIT – II

Salman Rushdie – Midnight Children
Arvind Adiga – The White Tiger

UNIT – III

Tonni Morison – The Bluest eye.
Margaret Atwood – Surfacing

UNIT – IV

Alice walker – The Color Purple
Jhumpa Lahiri – The Name Sake.

NOTE:

1. The Question Paper will comprise of two sections. Section A and section B.
2. There will be objective questions covering the entire units/ contents of the paper.
The number of questions will be 10 each of one mark.
3. There will be 5 short answer type questions each of two marks.
4. In section B there will be descriptive answer type questions from unit I to IV of equal marks (15 for questions) with 50% internal choice.

Recommended Books:

1. Jayafoxmraw Culture and anarchy in the novels of Chinuae Achebe.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS

M.A. ENGLISH

SEMESTER IV

PAPER – IV

(OPTIONAL)

2. GENDER STUDIES

UNIT – I

Defining the concept, Sex and Gender. Stereotypes, Gynocriticism, Body Politics, Female Creativity, Social Practices, Safi, Dowry, Rape, Child Marriage, widow hood, Female feticide and prostitution.

UNIT – II

Simon de Beauvoir "The Second Sex"

Kate Mikkett "Sexual Politice"

UNIT – III

Virginia Woolf "A Room for one's own"

Elaine Showalter "Speaking of Gender"

UNIT – IV

Ellen moers "Literary Women"

NOTE:

1. The Question Paper will comprise of two sections. Section A and section B.
2. There will be objective questions covering the entire units/ contents of the paper.
The number if questions will be 10 each of one mark.
3. There will be 5 short answer type questions each of two marks.
4. In section B there will be descriptive answer type questions from unit I to IV of equal marks (15 for questions) with 50% internal choice.

Recommended Books:

1. Nayar, Pramod K Literary Theory Today, New Delhi : Pratige Asia Book Club (2002)



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. हिन्दी

पाठ्यक्रम विवरण एवं अंक विभाजन					
सेमेस्टर	प्रश्न पत्र	विषय/प्रश्न पत्र का नाम	अंक विभाजन		
			सेमेस्टर परीक्षा	आंतरिक मूल्यांकन	पूर्णांक
प्रथम	1	हिन्दी साहित्य का इतिहास (आदिकाल, भक्तिकाल, रीतिकाल)	80	20	100
	2	प्राचीन काव्य	80	20	100
	3	आधुनिक गद्य साहित्य (नाटक एवं निबंध)	80	20	100
	4	भाषा विज्ञान	80	20	100
			योग	400	
सेमेस्टर पाठ्यक्रम विवरण एवं अंक विभाजन					
सेमेस्टर	प्रश्न पत्र	विषय/प्रश्न पत्र का नाम	अंक विभाजन		
			सेमेस्टर परीक्षा	आंतरिक मूल्यांकन	पूर्णांक
द्वितीय	1	हिन्दी साहित्य का इतिहास (आधुनिक काल)	80	20	100
	2	मध्यकालीन काव्य	80	20	100
	3	आधुनिक गद्य साहित्य (उपन्यास एवं कहानी)	80	20	100
	4	हिन्दी भाषा	80	20	100
			योग	400	
सेमेस्टर पाठ्यक्रम विवरण एवं अंक विभाजन					
सेमेस्टर	प्रश्न पत्र	विषय/प्रश्न पत्र का नाम	अंक विभाजन		
			सेमेस्टर परीक्षा	आंतरिक मूल्यांकन	पूर्णांक
तृतीय	1	भारतीय काव्यशास्त्र	80	20	100
	2	आधुनिक काव्य	80	20	100
	3	प्रयोजन मूलक हिन्दी	80	20	100
	4	भारतीय साहित्य	80	20	100
			योग	400	
सेमेस्टर पाठ्यक्रम विवरण एवं अंक विभाजन					
सेमेस्टर	प्रश्न पत्र	विषय/प्रश्न पत्र का नाम	अंक विभाजन		
			सेमेस्टर परीक्षा	आंतरिक मूल्यांकन	पूर्णांक
चतुर्थ	1	पाश्चात्य काव्यशास्त्र	80	20	100
	2	छायावादोत्तर काव्य	80	20	100
	3	पत्रकारिता प्रशिक्षण	80	20	100
	4	लोक साहित्य, छत्तीसगढ़ी भाषा का साहित्य	80	20	100
			योग	400	
				कुल योग	1600



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. हिन्दी

सेमेस्टर-1

प्रश्नपत्र-1 (अनिवार्य)

हिन्दी साहित्य का इतिहास (आदिकाल, भक्तिकाल, रीतिकाल)

पूर्णांक:- 100

मुख्य सेमेस्टर परीक्षा :- 80

आंतरिक मूल्यांकन :- 20

प्रस्तावना:—किसी भी देश के जनमानस की मनोवृत्ति, दशा, एवं संवेदना के विविध स्वरूपों का संचित रूप यहां के साहित्य में परिलक्षित होता है। सामाजिक, राजनैतिक, सांस्कृतिक आदि विभिन्न परिस्थितियों के कारण चित्तवृत्तियों में परिवर्तन होता है, फलतः साहित्यिक रूपों में भी इसे देखा-परखा जा सकता है। हिन्दी क्षेत्र परिस्थितियों से कमोबेश पूरा भारत प्रभावित है। आज तक के विकास परिदृश्य के साथ साहित्यिक सृजनशीलता के विविध रूपों, प्रवृत्तियों और भाषा-शैलियों का ज्ञान हिन्दी साहित्य के इतिहास के माध्यम से ही किया जा सकता है। अतः इसका अध्ययन सर्वथा सार्थक एवं समीचीन है।

पाठ्य विषय:-

इकाई-01 इतिहास-दर्शन और साहित्येतिहास, हिन्दी साहित्य के इतिहास लेखन की परम्परा, आधारभूत सामग्री और साहित्येतिहास के पुनर्लेखन की समस्याएँ, हिन्दी साहित्य का इतिहास, काल, विभाजन, सीमा निर्धारण और नामकरण की समस्याएँ।

इकाई-02 हिन्दी साहित्य-आदिकाल की पृष्ठभूमि, वीरगाथाकाल तथा सिद्ध और नाथ साहित्य, रासो आदिकालीन काव्य, जैन साहित्य, साहित्यिक प्रवृत्तियाँ, काव्य धाराएँ, प्रतिनिधि रचनाकार और उनकी रचनाएँ → गद्य

इकाई-03 पूर्व मध्यकाल (भक्तिकाल) की ऐतिहासिक पृष्ठभूमि, सांस्कृतिक चेतना एवं भक्ति आंदोलन तथा रचनाएँ।

इकाई-04 उत्तर मध्यकाल (रीतिकाल) की ऐतिहासिक पृष्ठभूमि, काल-सीमा और नामकरण, दरबारी संस्कृति, एवं लक्षण ग्रंथों की परम्परा, रीतिकालीन साहित्य की विभिन्न धाराएँ (रीति बद्ध, रीतिसिद्ध, रीतिमुक्त) प्रवृत्तियाँ, प्रतिनिधि रचनाकार और उनकी रचनाएँ।

इकाई-05 लघुउत्तरीय प्रश्न एवं वस्तुनिष्ठ प्रश्न, सम्पूर्ण पाठ्यक्रम से किये जायेंगे।

इकाई विभाजन

इकाई01-आलोचनात्मक प्रश्न 01

इकाई02- आलोचनात्मक प्रश्न 01

इकाई03- आलोचनात्मक प्रश्न 01

इकाई04- आलोचनात्मक प्रश्न 01

इकाई05- लघुउत्तरीय प्रश्न (पाँच)

अतिलघुउत्तरीय / वस्तुनिष्ठ प्रश्न (दस)

अंक विभाजन

15×1 =15

15×1 =15

15×1 =15

15×1 =15

5×2 =10

10×1 =10



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. हिन्दी

आंतरिकमूल्यांकन =20

सहायक पुस्तके:-

- | | |
|--------------------------------------|------------------------------|
| • हिन्दी साहित्य का इतिहास | आचार्य रामचन्द्र शुक्ल |
| • हिन्दी साहित्य का इतिहास | डॉ. नगेन्द्र |
| • हिन्दी साहित्य का आदिकाल | आचार्य हजारी प्रसाद द्विवेदी |
| • हिन्दी साहित्य | आचार्य हजारी प्रसाद द्विवेदी |
| • दूसरी परम्परा की खोज | डॉ. नामवर सिंह |
| • हिन्दी साहित्य का संक्षिप्त इतिहास | डॉ. नामवर सिंह |
| • हिन्दी साहित्य का संक्षिप्त इतिहास | डॉ. नंद दुलारे वाजपेयी |



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. हिन्दी

सेमेस्टर-1

प्रश्नपत्र-11 (अनिवार्य)

प्राचीन काव्य

पूर्णांक:- 100

मुख्य सेमेस्टर परीक्षा :- 80

आंतरिक मूल्यांकन :- 20

प्रस्तावना:-हिन्दी के आदिकालीन काव्य अपनी पृष्ठभूमि में अपभ्रंश के अवदान को पूरी तरह समेटे हुए है। प्रबंध, मुक्तक आदि काव्यरूपों में रचित और अपभ्रंश, अवहट्ट एवं देशी भाषा में अभिव्यंजित आदिकालीन साहित्य की परवर्ती कालों को प्रभावित करने में सक्रिय एवं सक्षम भूमिका रही है। इसके अध्ययन के बिना किसी भी काल का वास्तविक मूल्यांकन संभव नहीं है। पूर्वमध्यकालीन (भक्तिकालीन) काव्य लोक-जागरण और लोकमंगल का नवीन स्वर लेकर आया। इसने भारत की भावात्मक एकता और सांस्कृतिक परम्परा को सुरक्षित रखा है।

इस प्रश्न पत्र में 03 कवियों का अध्ययन अपेक्षित है। उनकी कालजयी कृतियों का उल्लेख यहां किया दिया गया है। द्रुतपाठ के अध्ययन के लिए 05 कवि चयनित हैं। व्याख्या एवं विवेचना के लिए निम्नांकित 03 कवियों का अध्ययन किया जाएगा।

इकाई 01:-विद्यापति- व्याख्या- विद्यापति पदावली, संपादक-रामवृक्ष बेनीपुरी, प्रारंभिक 20 पद

आलोचना- व्यक्तित्व एवं कृतित्व, भक्ति भावना, श्रृंगार वर्णन, प्रकृति चित्रण, सौंदर्य चित्रण, गीत पद्धति, काव्य कला, अंलकार योजना, भाषा, संस्कृत साहित्य का प्रभाव।

इकाई 02:- कबीर व्याख्या- कबीर ग्रंथावली, संपा- डॉ. श्यामसुन्दर दास 80 सांखियों तथा 20 पद निर्धारित सांखियों एवं पद - गुरुदेव को अंग - 01 से 20, सुमिरण का अंग- 1 से 10, विरह का अंग- 1 से 10, रस का अंग- 1 से 10, ग्यान विरह का अंग - 1 से 10, परचा का अंग- 1 से 10 तक

पद संख्या - 11, 16, 23, 24, 27, 33, 40, 43, 49, 51, 64, 70, 72, 74, 89, 92, 95, 98, 103, 108(20 पद)

आलोचना - व्यक्तित्व एवं कृतित्व, धार्मिक विचार, सामाजिक विचार, प्रेमतत्व, विरह भावना, रहस्यवाद, दार्शनिकता, उलटवासिया और प्रतीक पद्धति, काव्यकला, अंलकार योजना, भाषा।

इकाई 03:- व्याख्या- जायसी " व्यक्तित्व एवं कृतित्व, पदमावत में प्रेमभाव, सौंदर्य वर्णन, विरह वर्णन, रहस्यभावना एवं दर्शन, प्रकृति चित्रण, चरित्र चित्रण, महाकाव्यत्व, लोकतत्व, काव्यकला, भाषा, अंलकार योजना।

इकाई 04:-द्रुतपाठ के अंतर्गत निम्नांकित पांच कवियों का सामान्य अध्ययन किया जायेगा।

1- अमीर खुसरो 2-रसखान 3- मीरा बाई 4- रैदास 5- रहीम



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. हिन्दी

इकाई 05— वस्तुनिष्ठ/अतिलघु उत्तरीय प्रश्न – सम्पूर्ण पाठ्यक्रम से किए जायेंगे।

इकाई विभाजन

इकाई 01— विद्यापति व्याख्या
विद्यापति आलोचना
इकाई 02— कबीर व्याख्या
कबीर आलोचना
इकाई 03— जायसी व्याख्या
जायसी आलोचना
इकाई 04— आलोचनात्मक प्रश्न दो
इकाई 05— लघुउत्तरीय प्रश्न पांच
अतिलघुउत्तरीय सम्पूर्ण पाठ्य दस

अंक विभाजन

07
08
07
08
07
08
7/8
5×2=10✓
10×1=10✓
योग = 80
आंतरिक मूल्यांकन = 20

सहायक पुस्तकें—

1. कबीर और आधुनिक हिन्दी काव्य – डॉ. ललित राठोड़, समता प्रकाशन।
2. कबीर की विचारधारा – श्री गोविंद त्रिगुणायत।
3. विद्यापति व्यक्ति और कृतित्व – डॉ. रामसजन पाण्डेय, समता प्रकाशन।
4. भक्ति आंदोलन और मध्यकालीन हिन्दी भक्ति काव्य – डॉ. सुरेशचन्द्र।
5. जायसी और कबीर – सामाजिक संस्कृति के संदर्भ में – डॉ. डी.आर.राहुल।
6. जायसी – श्री विजय देवनारायण साही।



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. हिन्दी

सेमेस्टर-1

प्रश्नपत्र-III (अनिवार्य)

आधुनिक गद्य साहित्य (नाटक एवं निबंध)

पूर्णांक:- 100

मुख्य सेमेस्टर परीक्षा :- 80

आंतरिक मूल्यांकन :- 20

प्रस्तावना— आधुनिक काव्य में साहित्य को अभूतपूर्व सफलता मिली है। यह मानव-मन और मस्तिष्क की अभिव्यक्ति का सशक्त एवं अनिवार्य माध्यम बन गया है। मनुष्य का राग-विराग, तर्क-वितर्क तथा चिंतन-मनन पूर्ण रागात्मकता के साथ कौशलपूर्ण ढंग से गद्य में अभिव्यंजित होता है। आधुनिक काल में गद्य के विविध रूपों का विकास इस बात की पुष्टि करता है। नाटक, निबंध तथा अन्य विविध विधाओं के रूप में गद्य साहित्य वामन से विराट बन गया है। प्राकृतिक परिवेश, परिस्थिति तथा चिंतन की विकास-प्रक्रिया के साथ इस प्रश्न पत्र में 02 नाटक 05 निबंध पठनीय है।

पाठ्य विषय:- व्याख्या एवं विवेचना के लिए निर्धारित-

नाटक-

इकाई 01:- व्याख्या चन्द्रगुप्त (जयशंकर प्रसाद)

समीक्षा - जयशंकर प्रसाद व्यक्तित्व एवं कृतित्व, नाटक के तत्वों के आधार पर चन्द्रगुप्त नाटक की समीक्षा।

इकाई 02:- व्याख्या- आषाढ़ का एक दिन (मोहन राकेश)

समीक्षा - मोहन राकेश व्यक्तित्व एवं कृतित्व, नाटक के तत्व के आधार पर आषाढ़ का एक दिन की समीक्षा।

इकाई 03:- निबंध

1. आचार्य महावीर प्रसाद द्विवेदी - साहित्य की महत्ता।
2. आचार्य रामचन्द्र शुक्ल - करुणा।
3. आचार्य हजारी प्रसाद द्विवेदी - अशोक के फूल।
4. विद्यानिवास मिश्र - चंद्रमा मनसो जात।
5. हरिशंकर परसाई - भोलाराम का जीव।

इकाई 04:- द्रुतपाठ के अंतर्गत निम्नांकित नाटककार एवं निबंधकार का सामान्य अध्ययन अपेक्षित है।

1. नाटककार-

- 1.- भारतेन्दु हरिश्चन्द्र
- 2.- डॉ. रामकुमार वर्मा



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. हिन्दी

- 3.- लक्ष्मीनारायण लाल
- 4.- धर्मवीर भारती
- 5.- जगदीशचन्द्र माथुर

2. निबंधकार-

- 1.- भारतेन्दु हरिश्चन्द्र
- 2.- प्रतापनारायण मिश्र
- 3.- डॉ. नगेन्द्र
- 4.- विद्यानिवास मिश्र
- 5.- गोपाल चतुर्वेदी

इकाई विभाजन

इकाई 01- चन्द्रगुप्त व्याख्या

चन्द्रगुप्त समीक्षा

इकाई 02- आषाढ का दिन व्याख्या

आषाढ का दिन समीक्षा

इकाई 03- निर्धारित निबंधों से व्याख्या

निर्धारित निबंधों से समीक्षा

इकाई 04- आलोचनात्मक प्रश्न दो

इकाई 05- लघुउत्तरीय प्रश्न पांच

अतिलघुउत्तरीय सम्पूर्ण पाठ्य दस

अंक विभाजन

07 -

08 -

07 -

08 -

07 -

08 -

7/8

5×2=10

10×1=10

योग = 80

आंतरिक मूल्यांकन = 20

सहायक पुस्तक:-

1. हिन्दी नाटक विमर्श - डॉ. देवीदास इंगले
2. साठोत्तरी हिन्दी नाटक में युग चेतना - डॉ. विजया गाडवे
3. मोहन राकेश और उनके नाटक - गिरीश रस्तोगी
4. प्रसाद के नाटकों का शास्त्रीय अध्ययन - जगन्नाथ प्रसाद शर्मा
5. निबंध प्रभा - डॉ. श्रीमती शीलप्रभा मिश्र
6. साठोत्तर हिन्दी नाटकों की सामाजिक चेतना - डॉ. श्रीमती जयश्री शुक्ल
7. रचना का नया परिदृश्य - डॉ. श्रीमती जयश्री शुक्ल



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
सेमेस्टर पाठ्यक्रम
एम.ए. हिन्दी

सेमेस्टर-1
प्रश्नपत्र-IV (अनिवार्य)
भाषा विज्ञान

पूर्णांक:- 100
मुख्य सेमेस्टर परीक्षा :- 80
आंतरिक मूल्यांकन :- 20

प्रस्तावना—साहित्य के गंभीर अध्ययन के लिए भाषिक व्यवस्था का सुस्पष्ट सर्वांगीण ज्ञान अपरिहार्य है। भाषाविज्ञान की वस्तुनिष्ठ अध्ययन प्रणाली के रूप में भाषिक इकाईयों तथा भाषा संरचना के विभिन्न स्तरों पर, उनके अंतःसंबंधों के विन्यास को आलोकित कर न केवल अध्येता को भाषिक अंतर्दृष्टि देता है अपितु भाषा-विषयक विवेचन के लिए एक निरूपक भाषा भी प्रदान करता है।

पाठ्य विषय:-

इकाई 01— भाषा और भाषा विज्ञान — भाषा की परिभाषा और अभिलक्षण, भाषा व्यवस्था और भाषा-व्यवहार, भाषा संरचना और भाषिक-प्रकार्य। भाषा विज्ञान स्वरूप एवं व्याप्ति, अध्ययन की दिशाएँ—वर्णनात्मक, ऐतिहासिक और तुलनात्मक।

इकाई 02— स्वन प्रक्रिया — स्वन विज्ञान का स्वरूप और शाखाएँ, वागवयव और उनके कार्य, स्वन की अवधारणा और स्वनों का वर्गीकरण, स्वनगुण, स्वनिक परिवर्तन। स्वनिम विज्ञान का स्वरूप, स्वनिम की अवधारणा, स्वनिम के भेद, स्वनिमिक विश्लेषण।

इकाई 03— व्याकरण — रूप प्रक्रिया का स्वरूप और शाखाएँ— रूपिम की अवधारणा और भेद मुक्त— आबध्य, अर्थ दर्षी और संबंध दर्षी, रूपिम के भेद और प्रकार्य। वाक्य की अवधारणा, वाक्य के भेद, वाक्य विश्लेषण, निकटस्थ अवयव विश्लेषण, गहन-संरचना और बाह्य संरचना।



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. हिन्दी

इकाई 04— अर्थ विज्ञान — अर्थ की अवधारणा, शब्द और अर्थ का संबंध, पर्यायता, अनेकार्थता, विलोमता, अर्थ परिवर्तन।

इकाई 05— लघुउत्तरीय एवं वस्तुनिष्ठ प्रश्न संपूर्ण पाठ्यक्रम से किया जायेगा।

	अंक विभाजन
आलोचनात्मक प्रश्न (इकाई एक, दो, तीन, चार से एक-एक प्रश्न)	15×4 = 60
अतिलघुउत्तरीय/लघुउत्तरीय (पांच)	05×2 = 10
वस्तुनिष्ठ प्रश्न (दस) (इकाई पांच से)	10×1 = 10
	योग = 80
	आंतरिक मूल्य = 20

सहायक पुस्तकें:-

- | | |
|---------------------------------|--------------------------|
| 1. भाषा विज्ञान और हिन्दी भाषा | — डॉ. भोलानाथ तिवारी |
| 2. हिन्दी विज्ञान | — डॉ. देवेन्द्रनाथ शर्मा |
| 3. भाषा विज्ञान एवं भाषा विचार | — डॉ. पोटदार, डॉ. खराटे |
| 4. भाषा विज्ञान एवं हिन्दी भाषा | — डॉ. बी.डी. शर्मा |
| 5. सामान्य भाषा विज्ञान | — डॉ. बाबू राम सक्सेना |



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
सेमेस्टर पाठ्यक्रम
एम.ए. हिन्दी

सेमेस्टर-॥

प्रश्नपत्र-1 (अनिवार्य)

हिन्दी साहित्य का इतिहास-आधुनिक काल

पूर्णांक:- 100

मुख्य सेमेस्टर परीक्षा :- 80

आंतरिक मूल्यांकन :- 20

प्रस्तावना -किसी भी देश के जनमानस की मनोवृत्ति, दशा एवं संवेदना के विविध स्वरूपों का संचित रूप यहां के साहित्य में परिलक्षित होता है। सामाजिक, राजनैतिक, सांस्कृतिक आदि विभिन्न परिस्थितियों के कारण चित्तवृत्तियों में परिवर्तन होता है, फलतः साहित्यिक रूपों में भी बदलाव आ जाता है। इस बदली हुयी विकास प्रक्रिया को साहित्य के इतिहास के माध्यम से ही देखा-परखा जा सकता है। हिन्दी क्षेत्र की परिस्थितियों से कामोवेश पूरा भारत प्रभावित होता रहा है, जिसकी गूँज हिन्दी साहित्य में प्रतिध्वनित है। आठवीं-नवीं शताब्दी से लेकर आज तक के विकास परिदृश्य के साथ साहित्यिक सृजनशीलता के विविध रूपों, प्रवृत्तियों और भाषा-शैलियों का ज्ञान हिन्दी साहित्य के इतिहास के माध्यम से ही किया जा सकता है। इसका अध्ययन सर्वथा सार्थक एवं समीचीन है।

पाठ्य विषय:-

इकाई 01-

1. आधुनिक काल की सामाजिक, आर्थिक एवं सांस्कृतिक पृष्ठभूमि सन् 1856 ई. की राजक्रांति और पुनर्जागरण।

2. भारतेन्दु युग- प्रमुख साहित्यिकार, रचनाएं और साहित्यिक विशेषतायें।

3. द्विवेदी युग - प्रमुख साहित्यिकार, रचनाएं और साहित्यिक विशेषतायें।

इकाई 02-

1. हिन्दी स्वच्छंदतावादी चेतना का अग्रिम विकास, छायावादी काव्य, प्रमुख साहित्यिकार, रचनाएं और साहित्यिक विशेषतायें।

2. उत्तर छायावादी काव्य की विविध प्रवृत्तियाँ-प्रगतिवाद, प्रयोगवाद, नयी कविता, नवगीत, समकालीन कविता। प्रमुख साहित्यिकार, रचनाएं और साहित्यिक विशेषतायें।



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. हिन्दी

- इकाई 03- 1. हिन्दी गद्य की प्रमुख विधायें— कहानी, उपन्यास, नाटक, एकांकी, निबंध का विकास।
- इकाई 04- हिन्दी की अन्य गद्य विधायें— रेखाचित्र, स्मरण, यात्रा साहित्य, आत्मकथा, जीवनी और रिपोतार्ज का विकासात्मक अध्ययन।
- इकाई 05- लघुउत्तरीय एवं वस्तुनिष्ठ प्रश्न संपूर्ण पाठ्यक्रम से किये जायेंगे।

इकाई विभाजन

इकाई 01— आलोचनात्मक प्रश्न	01
इकाई 02— आलोचनात्मक प्रश्न	01
इकाई 03— आलोचनात्मक प्रश्न	01
इकाई 04— आलोचनात्मक प्रश्न	01
इकाई 05— लघुउत्तरीय प्रश्न (पांच)	01
अतिलघुउत्तरीय / वस्तुनिष्ठ (दस)	

अंक विभाजन

$15 \times 1 = 15$
$15 \times 1 = 15$
$15 \times 1 = 15$
$15 \times 1 = 15$
$05 \times 2 = 10$
$10 \times 1 = 10$
योग = 80

आंतरिक अंक = 20

सहायक पुस्तकें—

1. हिन्दी साहित्य का इतिहास — आचार्य रामचन्द्र शुक्ल
2. हिन्दी साहित्य का इतिहास — डॉ. नगेन्द्र
3. हिन्दी साहित्य का आदिकाल — आचार्य हजारी प्रसाद द्विवेदी
4. हिन्दी साहित्य — आचार्य हजारी प्रसाद द्विवेदी
5. दूसरी परम्परा की खोज — डॉ. नामवर सिंह
6. हिन्दी साहित्य का संक्षिप्त इतिहास — डॉ. नंद दुलारे बाजपेयी



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
सेमेस्टर पाठ्यक्रम
एम.ए. हिन्दी

सेमेस्टर-॥
प्रश्नपत्र-॥ (अनिवार्य)
मध्यकालीन काव्य

पूर्णांक:- 100
मुख्य सेमेस्टर परीक्षा :- 80
आंतरिक मूल्यांकन :- 20

प्रस्तावना:- मध्यकालीन काव्य (शीतिकाल) अपनी कलात्मक अभिव्यंजना में बेजोड़ है। इनका अध्ययन समाज, संस्कृति और युग की घड़कनों को समग्रता से समझने के लिए अनिवार्य है। इस प्रश्न पत्र में 03 कवि पठनीय हैं उनकी कालजयी कृतियों का उल्लेख यहाँ किया गया है। द्रुतपाठ रूप के अध्ययन के लिए 05 कवि चयनित हैं।

पाठ्य विषय:- व्याख्या एवं निवेदन के लिए निम्नलिखित 03 कवियों का अध्ययन किया जायेगा-
इकाई 01- सूरदास- व्याख्या- भ्रमरगीत सार संपा.- आचार्य रामचन्द्र शुक्ल- पद संख्या 01 से 10, 21 से 30, 51 से 60, 61 से 70 (कुल 40 पद)।
आलोचना- सूर व्यक्तित्व एवं कृतित्व, भ्रमरगीत की दार्शनिक पृष्ठभूमि, भक्तिभावना, वियोग वर्णन, उपालंभ काव्य, सूर की गोपियाँ, सूर के उद्भव, काव्य कला।

इकाई 02- तुलसीदास - व्याख्या- रामचरितमानस(गीता प्रेस) सुन्दर काण्ड पूर्ण।
आलोचना- तुलसीदास व्यक्तित्व एवं कृतित्व, भक्ति भावना, महाकाव्यत्व, लोक जीवन एवं संस्कृति, काव्य कला, लोकनायकत्व, दार्शनिकता, गीतितत्व, भाषाशैली, अलंकार योजना।

इकाई 03- बिहारीलाल- व्याख्या - बिहारी रत्नाकर संपा.- जगन्नाथ प्रसाद रत्नाकर (प्रारंभिक 80 दोहे)



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर(छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. हिन्दी

आलोचना— बिहारी व्यक्तित्व एवं कृतित्व, संयोग—वियोग, निरूपण, सौंदर्य चित्रण, बहुज्ञता, काव्य सौंदर्य, काव्य कला, भाषा शैली, अंलकार योजना।

इकाई 04— निम्नांकित 05 कवियों का अध्ययन किया जाना है—

1. धनानंद 2. केशवदास 3. देव 4. भूषण 5. पद्ममाकर

इकाई 05— लघुउत्तरीय एवं वस्तुनिष्ठ प्रश्न संपूर्ण पाठ्यक्रम से।

इकाई विभाजन

इकाई 01— सूरदास व्याख्या

अंक विभाजन

07

सूरदास आलोचना

08

इकाई 02— तुलसीदास व्याख्या

07

तुलसीदास आलोचना

08

इकाई 03— बिहारी व्याख्या

07

बिहारी आलोचना

08

इकाई 04— आलोचनात्मक प्रश्न (दो)

7/8

इकाई 05— अतिलघुउत्तरीयवस्तुनिष्ठ/लघुउत्तरीय (पांच)

05×2=10

सम्पूर्ण पाठ्यक्रम (दस)

10×1=10

योग=80

आंतरिक मूल्यांकन =20

सहायक पुस्तकें—

1. रीतिकालीन तथ्य और चिंतन — डॉ. सरोजनी पाण्डेय
2. मध्यकालीन कवियों के काव्य के काव्य सिद्धांत — डॉ. छबिनाथ त्रिपाठी
3. कृष्ण काव्य और सूर — डॉ. प्रेमशंकर
4. गोस्वामी तुलसीदास व्यक्ति और काव्य — डॉ. रमेशचंद्र शर्मा, डॉ. रुचि बाजपेयी
5. हिन्दी साहित्य का इतिहास — डॉ. नगेन्द्र



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. हिन्दी

सेमेस्टर-॥

प्रश्नपत्र-III (अनिवार्य)

आधुनिक गद्य साहित्य (उपन्यास एवं कहानी)

पूर्णांक:- 100

मुख्य सेमेस्टर परीक्षा :- 80

आंतरिक मूल्यांकन :- 20

प्रस्तावना:—आधुनिक काल में गद्य साहित्य को अभूतपूर्व सफलता मिली है। यह मानव-मन और मस्तिष्क के अभिव्यक्ति का सशक्त एवं अनिवार्य माध्यम बन गया है। मनुष्य का राग विराग, तर्क-वितर्क तथा चिंतन-मनन जिस रागात्मकता के साथ कौशलपूर्ण ढंग से गद्य में अभिव्यंजित होता है, वैसा अन्य साहित्यरूप में नहीं। आधुनिक काल में गद्य के विविध रूपों का विकास इस तथ्य का साक्षी है कि प्रौढ़-शक्तिशाली प्रतिरूप, उसकी व्यक्तित्व एवं स्वतंत्र चेतना का विश्वसनीय प्रतिनिधि है। उपन्यास, कहानी तथा अन्य विविध विधाओं के रूप में गद्य साहित्य वामन से विराट बन गया है। आज मनुष्य को उसकी प्रकृति, परिवेश, परिस्थिति तथा चिंतन की विकास-प्रक्रिया के साथ सहज प्रमाणिक रूप में गद्य के माध्यम से ही जाना जा सकता है।

पाठ्य विषय:—

व्याख्या एवं विवेचना के लिए निर्धारित—

इकाई 01— उपन्यास—

व्याख्या— गोदान — प्रेमचन्द्र

समीक्षा— प्रेमचन्द्र व्यक्तित्व एवं कृतित्व, उपन्यास के तत्वों के आधार पर गोदान की समीक्षा।

इकाई 02 — (अ) हिन्दी गद्य की अन्य विधाएं।



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. हिन्दी

(ब) महादेवी का गद्य एवं साहित्य।

इकाई .03- कहानी-
व्याख्या-

1. चन्द्रधर शर्मा गुलेरी	-	उसने कहा था
2. जयशंकर प्रसाद	-	पुरस्कार
3. प्रेमचन्द्र	-	पूस की रात
4. निर्मल वर्मा	-	परिन्दे
5. उषा प्रियम्बदा	-	वापसी
6. रामेय राघव	-	बिरादरी बाहर

समीक्षा- निर्धारित कहानीकारों के व्यक्तित्व एवं कृतित्व, कहानी के तत्वों के आधार पर कहानी की समीक्षा।

इकाई 04- निम्नांकित उपन्यासकार एवं कहानीकार का सामान्य अध्ययन किया जाना है-

1. उपन्यासकार-
1. जैनेन्द्र 2. भगवतीचरण वर्मा 3. अमृत लाल नागर 4. मृणाल पाण्डेय
2. कहानीकार-
1. अज्ञेय 2. यशपाल 3. ममता कलिया 4. अमरकांत

इकाई 05- लघुउत्तरीय एवं वस्तुनिष्ठ प्रश्न, अतिलघुउत्तरीय संपूर्ण पाठ्यक्रम से।

<u>इकाई विभाजन</u>	<u>अंक विभाजन</u>
इकाई 01- गोदान व्याख्या	07
गोदान समीक्षा	08
इकाई 02- मैला आंचल व्याख्या	07
मैला आंचल समीक्षा	08
इकाई 03- निर्धारित निबंधों से व्याख्या	07
निर्धारित निबंधों से समीक्षा	08
इकाई 04- आलोचनात्मक प्रश्न (दा)	7/8
लघुउत्तरीय प्रश्न (पांच)	5×2=10
इकाई 05- अतिलघुउत्तरीय सम्पूर्ण पाठ्य (दस)	10×1=10
	योग = 80
	आंतरिक मूल्यांकन = 20



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. हिन्दी

सहायक पुस्तकें—

1. हिन्दी की कालजयी कहानियों में मानवीय मूल्य — डॉ. राजेन्द्र सिंह चौहान
2. हिन्दी उपन्यासों की समीक्षा — डॉ. जाधव, डॉ. कुर्रे
3. हिन्दी उपन्यास : वस्तु एवं शिल्प — डॉ. श्रद्धा उपाध्याय
4. हिन्दी कहानी का प्रगतिशील रवैया — डॉ. बी.के. सुब्रमणियम
5. हिन्दी साहित्य का इतिहास — डॉ. श्रीनिवास शर्मा
6. प्रेमचंद और अमृत लाल नागर के उपन्यासों में प्रतिफलित सामाजिक चेतना—

डॉ. डी.एस.ठाकुर प्रकाशन: पंकज बुक्स, पटपड़गंज, दिल्ली

सेमेस्टर—II

प्रश्नपत्र—IV (अनिवार्य)

हिन्दी भाषा

पूर्णांक:— 100

मुख्य सेमेस्टर परीक्षा :- 80

आंतरिक मूल्यांकन :- 20

प्रस्तावना:—भाषा वैज्ञानिक आधार पर हिन्दी भाषा का ऐतिहासिक विकास क्रम, भौगोलिक विस्तार, भाषिक स्वरूप, विविधरूपता तथा हिन्दी में कम्प्यूटर सुविधाओं विषयक जानकारी एवं देवनागरी के वैशिष्ट्य, विकास और मानकीकरण का विवरण हिन्दी के अध्येताओं के लिये अत्यंत उपयोगी है।

पाठ्य विषय:—

इकाई 01— हिन्दी की ऐतिहासिक पृष्ठभूमि, प्राचीन भारतीय आर्य भाषायें— वैदिक तथा लौकिक संस्कृति एवं उनकी विशेषतायें।

भारतीय आर्य भाषायें — पाली, प्राकृत, शौरसेनी, अर्धमागधी, अपभ्रंश और उनकी विशेषतायें।
आधुनिक भारतीय आर्य भाषायें और उनका वर्गीकरण।

इकाई 02— हिन्दी का भौगोलिक विस्तार— हिन्दी की उपभाषाएं, पश्चिमी हिन्दी, पूर्वी हिन्दी, राजस्थानी, बिहारी तथा पहाड़ी और उनकी बोलियाँ। खड़ीबोली, ब्रज और अवधि की विशेषतायें।

इकाई 03— हिन्दी का भाषिक स्वरूप — हिन्दी की स्वनिम व्यवस्था — खंड्य, खंड्येत्तर हिन्दी शब्द रचना— उपसर्ग, प्रत्यय, समास। रूपरचना—लिंग, वचन और कारकव्यवस्था के संदर्भ में हिन्दी के संज्ञा, सर्वनाम, विशेषण और क्रिया रूप।
हिन्दी वाक्य — रचना: पदक्रम और अन्विति।



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर(छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. हिन्दी

इकाई 04— हिन्दी के विविध रूप— संपर्क भाषा, राष्ट्रभाषा, राजभाषा के रूप में हिन्दी, मातृभाषा माध्यम भाषा, संचार भाषा, हिन्दी की संवैधानिक स्थिति।
हिन्दी में कम्प्यूटर सुविधायें — आकड़ा—संसाधन और शब्द —संसाधन, वर्तनी—शोधक, मशीन अनुवाद, हिन्दी और मानकीकरण।
देवनागरी लिपि :- विशेषतायें और मानकीकरण।

इकाई 05— लघुउत्तरीय /वस्तुनिष्ठप्रश्न संपूर्ण पाठ्यक्रम से।

इकाई विभाजन

इकाई 01— आलोचनात्मक प्रश्न	01
इकाई 02— आलोचनात्मक प्रश्न	01
इकाई 03— आलोचनात्मक प्रश्न	01
इकाई 04— आलोचनात्मक प्रश्न	01
इकाई 05— लघुउत्तरीय प्रश्न (पांच)	01
अतिलघुउत्तरीय / वस्तुनिष्ठ (दस)	

अंक विभाजन

15×1 = 15
15×1 = 15
15×1 = 15
15×1 = 15
5×2 = 10
8×1 = 08
योग— 80
आंतरिक मूल्यांकन — 20

सहायक पुस्तकें—

1. भाषा विज्ञान और हिन्दी भाषा	—	डॉ. भोलानाथ तिवारी
2. भारतीय आर्य भाषा और हिन्दी	—	डॉ. सुनीति कुमार चटर्जी
3. राष्ट्र हिन्दी : मेरे विचार	—	डॉ. धर्मवीर चंदेल
4. हिन्दी भाषा एक अबाध प्रवाह	—	डॉ. मीता, डॉ. सुमन
5. भाषा विज्ञान एवं हिन्दी भाषा	—	डॉ. बी.डी. शर्मा



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. हिन्दी

सेमेस्टर-III

प्रश्नपत्र-1 (अनिवार्य) भारतीय काव्य शास्त्र

पूर्णांक:- 100

मुख्य सेमेस्टर परीक्षा :- 80

आंतरिक मूल्यांकन :- 20

रचना के वैशिष्ट्य और मूल्यबोध के उद्घाटन के लिए काव्य शास्त्र का ज्ञान अपरिहार्य है। इनसे साहित्यिक समझ विकसित होती है। इसमें वह दृष्टि मिलती है जिसके आधार पर साहित्य के मर्म और मूल्य की वास्तविक परख की जा सके। सामाजिक-सांस्कृतिक परिवेश के साथ रचना का आस्वाद प्राप्त करने, रचना को उसकी समग्रता में समझाने और जांचने परखने के लिए भारतीय काव्यशास्त्र का अध्ययन समीचीन है-

पाठ्य विषय-

इकाई-01-संस्कृत काव्यशास्त्र- काव्य लक्षण, काव्य हेतु, काव्य प्रयोजन, काव्य प्रकार।
रस सिद्धांत-रस का स्वरूप, रस निष्पत्ति, रस के अंग, साधारणीकरण।

इकाई-02-अलंकार सिद्धांत-मूल स्थापनाएँ, अलंकारों का वर्गीकरण। रीति सिद्धांत-रीति की अवधारणा, काव्यगुण, रीति एवं शैली, रीति सिद्धांत की प्रमुख स्थापनाएँ

इकाई-03-वक्रोक्तिसिद्धांत की अवधारणा, वक्रोक्ति के भेद, वक्रोक्ति एवं अभिव्यंजनावाद, औचित्य सिद्धांत-प्रमुख स्थापना, औचित्य के भेद

इकाई-04- ध्वनि सिद्धांत-ध्वनि का स्वरूप, ध्वनि सिद्धांत की प्रमुख स्थापनाएँ, ध्वनि काव्य के प्रमुख भेद। हिन्दी आलोचना की प्रमुख प्रवृत्तियाँ - शास्त्रीय, व्यक्तिवादी, ऐतिहासिक, तुलनात्मक, प्रभाववादी, मनोविश्लेषणवादी, सौन्दर्यशास्त्रीय, शैली वैज्ञानिक, और समाजशास्त्रीय।

इकाई-05- लघुत्तरीय एवं वस्तुनिष्ठ प्रश्न संपूर्ण पाठ्यक्रम से किया जायेगा।



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. हिन्दी

इकाई विभाजन अंक विभाजन

इकाई 01— आलोचनात्मक प्रश्न	01	15x1 = 15	
इकाई 02— आलोचनात्मक प्रश्न	01		15x1 = 15
इकाई 03— आलोचनात्मक प्रश्न	01	15x1 = 15	
इकाई 04— आलोचनात्मक प्रश्न	01		15x1 = 15
इकाई 05— लघुउत्तरीय प्रश्न (पाँच)			5x2 = 10
अतिलघुउत्तरीय / वस्तुनिष्ठ प्रश्न(दस)			10x1 = 10

योग— 80

आंतरिक मूल्यांकन — 20

सहायक पुस्तकें—

1. भारतीय काव्यशास्त्र की भूमिका — डॉ. नगेन्द्र ।
2. भारतीय आलोचना शास्त्र — डॉ. राजवंश सहाय बिहार हिन्दी ग्रंथ अकादमी पटना ।
3. भारतीय काव्यशास्त्र — डॉ. राममूर्ति त्रिपाठी
4. संस्कृत काव्यशास्त्र (भाग1-2) — डॉ. बलदेव प्रसाद उपाध्याय
5. भारतीय काव्यशास्त्र — डॉ. भगीरथी मिश्र
6. भारतीय काव्यशास्त्र — श्री उदयभानु सिंह

—00—



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. हिन्दी

सेमेस्टर—III

प्रश्नपत्र—II (अनिवार्य)

आधुनिक काव्य

पूर्णांक:— 100

मुख्य सेमेस्टर परीक्षा :- 80

आंतरिक मूल्यांकन :- 20

प्रस्तावना—आधुनिक काव्य—पुनर्नवा के रूप में नवीन भावभूमि एवं वैचारिक गतिशीलता लेकर अवतरित हुआ। आधुनिकता, इहलौकिकता, विश्वजनीनता एवं वैज्ञानिक दृष्टिकोण इसकी प्रमुख विशेषताएं हैं। उपेक्षित विषय भी यहां सार्थक एवं प्रासंगिक हो गए। उन्नीसवीं शती के उत्तरार्द्ध से अद्यावधि तक की संवेदनाएं, भावनाएं एवं नूतन विचार सरणियाँ इसमें अभिव्यक्त हुई हैं विविध धाराओं में प्रवाहमान आधुनिक हिन्दी काव्य, प्रेरणा और ऊर्जा का अजस्र स्रोत है।

अतः संवेदना तथा ज्ञान क्षितिज के विस्तार के लिए इसका अध्ययन अत्यंत आवश्यक एवं प्रासंगिक है।

पाठ्य विषय—

इकाई—01—

मैथिलीशरण गुप्त साकेत नवम सर्ग की व्याख्या।

आलोचना—मैथिलीशरण गुप्त व्यक्तित्व एवं कृतित्व, संपूर्ण साकेत से आलोचनात्मक प्रश्न।

इकाई—02—

जयशंकर प्रसाद कामायनी— चिन्ता, श्रद्धा, लज्जा सर्ग की व्याख्या।

आलोचना— जयशंकर प्रसाद व्यक्तित्व एवं कृतित्व, सम्पूर्ण कामायनी से आलोचनात्मक प्रश्न।

इकाई—03—

पं. सूर्यकांत त्रिपाठी "निराला" राम की शक्ति पूजा, सरोज

स्मृति एवं कुकुरमुत्ता की व्याख्या।

आलोचना — निराला व्यक्तित्व एवं कृतित्व, राम की शक्ति पूजा का काव्य

वैभव, सरोज स्मृति कविता की संवेदना, कुकुरमुता में निहित व्यंग्य।

इकाई—04—

निम्नांकित कवियों का सामान्य अध्ययन किया जाना है —

1. अयोध्या सिंह उपाध्याय "हरिऔध" 2. जगन्नाथ दास रत्नाकर, 3. महादेवी वर्मा, 4. हरिवंश राय बच्चन 5. त्रिलोचन शास्त्री

इकाई—05—

लघुत्तरीय एवं वस्तुनिष्ठ/अतिलघुत्तरीय प्रश्न सम्पूर्ण पाठ्यक्रम से किए जायेंगे।



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. हिन्दी

इकाई विभाजन	अंक विभाजन
इकाई-01- मैथिलीशरण गुप्त व्याख्या	— 07
मैथिलीशरण गुप्त आलोचना	— 08
इकाई-02- जयशंकर प्रसाद व्याख्या	— 07
जयशंकर प्रसाद आलोचना	— 08
इकाई-03- पं. सूर्यकांत त्रिपाठी निराला व्याख्या	— 07
पं. सूर्यकांत त्रिपाठी निराला आलोचना	— 08
इकाई-04- आलोचनात्मक प्रश्न (दो)	— 07+08 = 15
इकाई-05- लघुत्तरीय (पांच)	— 5x2 = 10
अतिलघुत्तरीय / वस्तुनिष्ठ	— 10x1 = 10
	योग— 80
	आंतरिक मूल्यांकन — 20

सहायक पुस्तकें :-

1. साकेत नवम् सर्ग का काव्य सौष्ठव — श्री कन्हैया लाल सहाय
2. कामायनी एक पुनर्मूल्यांकन — श्री रामस्वरूप चतुर्वेदी
3. कामायनी के अध्ययन की समस्याएँ — डॉ० नगेन्द्र
4. कवि निराला — आचार्य नंददुलारे बाजपेयी
5. स्वातंत्रयोत्तर हिन्दी महाकाव्य — डॉ० निजामुद्दीन
6. हिन्दी साहित्य का इतिहास — आचार्य रामचन्द्र शुक्ल



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. हिन्दी

सेमेस्टर-III

प्रश्नपत्र-III (अनिवार्य)

प्रयोजन मूलक हिन्दी

पूर्णांक:- 100

मुख्य सेमेस्टर परीक्षा :- 80

आंतरिक मूल्यांकन :- 20

प्रस्तावना :-

भाषा मानव जीवन की अनिवार्य सामाजिक वस्तु और व्यावहारिक चेतना है, जिसके दो मुख्य आयाम या प्रकार्य हैं - सौंदर्य परक और प्रयोजन परक। भाषा के प्रयोजन परक आयाम का संबंध हमारी सामाजिक आवश्यकताओं और जीवन व्यवहार से है, और व्यक्तिपरक होकर भी जो समाज सापेक्ष सेवा माध्यम (सर्विस टूल्स) के रूप में प्रयुक्त होती है। उत्तर आधुनिक काल में जीवन और समाज की विभिन्न आवश्यकताओं और दायित्वों की पूर्ति के लिए विभिन्न व्यवहार क्षेत्रों में उपयोग की जानेवाली प्रयोजन मूलक हिन्दी का अध्ययन अति अपेक्षित है। इसके विविध आयामों से न केवल रोजगार या जीविका की समस्या हल होगी अपितु राष्ट्रभाषा का संस्कार भी दृढ़ होगा।

पाठ्य विषय :-

इकाई-01- हिन्दी के विभिन्न रूप सर्जनात्मक भाषा, संचार भाषा, राजभाषा, माध्यमभाषा, मातृभाषा कार्यालयी हिन्दी (राजभाषा) में प्रमुख प्रकार्य प्रारूपण, पत्र-लेखन, संक्षेपण, पल्लवन टिप्पण। पारिभाषिक शब्दावली, स्वरूप एवं महत्व, पारिभाषिक शब्दावली निर्माण सिद्धान्त, ज्ञानविज्ञान विभिन्न क्षेत्रों की पारिभाषिक शब्दावली, विज्ञापन लेखन।

इकाई-02- कम्प्यूटर परिचय, उपयोग तथा क्षेत्र वेब पब्लिशिंग का परिचय इंटरनेट, ई-मेल भेजना प्राप्त करना, हिन्दी के प्रमुख पोर्टल, डाउनलोडिंग व अपलोडिंग हिन्दी सॉफ्टवेयर, पैकेज

इकाई-03- अनुवाद-परिभाषा, क्षेत्र और सीमाएं

अनुवाद का स्वरूप- अनुवाद कला विज्ञान अथवा शिल्प, अनुवाद की इकाई शब्द पदबंध, वाक्य पाठ, अनुवाद की प्रक्रिया और प्रविधि-विश्लेषण, अंतरण, पुनर्गठन अनुवाद प्रक्रिया के विभिन्न चरण, अनुवाद की समस्याएं साहित्यिक, कार्यालयीन, वैज्ञानिक एवं तकनीकी विधि, विज्ञापन, मीडिया

इकाई-04- जनसंचार : प्रौद्योगिकी एवं चुनौतियाँ जनसंचार माध्यमों का स्वरूप -मुद्रण, श्रव्य, दृश्य श्रव्य, इंटरनेट श्रव्य माध्यम (फिल्म, टेलीविज़न एवं वीडियो) दृश्य माध्यमों में रुपान्तरण।

इकाई-05- लघुत्तरीय प्रश्न एवं अतिलघुत्तरीय प्रश्न संपूर्ण पाठ्यक्रम से किया जायेगा।



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. हिन्दी

इकाई विभाजन अंक विभाजन

इकाई 01— आलोचनात्मक प्रश्न	01	15x1	= 15
इकाई 02— आलोचनात्मक प्रश्न	01	15x1	= 15
इकाई 03— आलोचनात्मक प्रश्न	01	15x1	= 15
इकाई 04— आलोचनात्मक प्रश्न	01	15x1	= 15
इकाई 05— लघुत्तरीय प्रश्न (पाँच)		5x2	= 10
अतिलघुत्तरीय/वस्तुनिष्ठ प्रश्न(दस)		10x1	= 10
		योग—	80
		आंतरिक मूल्यांकन [±]	20

सहायक पुस्तकें

1. प्रयोजन मूलक हिन्दी — डॉ० राम छबीला त्रिपाठी।
2. प्रमाणिक प्रयोजन मूलक हिन्दी — डॉ० पृथ्वीनाथ पाण्डेय।
3. आधुनिक विज्ञापन और जन संपर्क — डॉ० तारेश मारिया।
4. अनुवाद विज्ञान : सिद्धांत और प्रयोग — डॉ० जयश्री शुक्ला।
5. अनुवाद प्रक्रिया और स्वरूप — डॉ० कैलाश चंद्र भाटिया।
6. प्रयोजन मूलक कामकाजी हिन्दी — डॉ० कैलाश चंद्र भाटिया।
7. कामकाजी हिन्दी भूमण्डलीय के दौर में — डॉ० देशबन्धु राजेश।



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. हिन्दी

सेमेस्टर-III

प्रश्नपत्र-IV (अनिवार्य)

भारतीय साहित्य

पूर्णांक:- 100

मुख्य सेमेस्टर परीक्षा:- 80

आंतरिक मूल्यांकन:- 20

प्रस्तावना :-

भारतीय भाषाओं में हिन्दी भाषा और साहित्य का स्थान अन्य प्रांतीय भाषाओं की तुलना में अपेक्षाकृत अधिक महत्वपूर्ण है। इसलिए हिन्दी साहित्य के अध्ययन को अधिकाधिक गंभीर तथा प्रशस्त बनाना अत्यंत आवश्यक है। एक समकालिक भारतीय साहित्य की रूपरचना के लिए हिन्दी का भारतीय संदर्भ सर्वथा प्रासंगिक है। इस दृष्टि से हिन्दी के स्नातकोत्तर विद्यार्थियों के लिए भारतीय भाषाओं के साहित्य का ज्ञान अनिवार्य है। तभी उनके ज्ञान-क्षितिज एवं सांस्कृतिक दृष्टि का विकास होगा यही नहीं इससे हिन्दी अध्ययन का अंतरंग विस्तार भी होगा इस प्रश्न पत्र के चार खण्ड होंगे। प्रत्येक खण्ड से एक-एक प्रश्न का उत्तर देना अनिवार्य होगा।

पाठ्य विषय:-

इकाई-01-

भारतीय साहित्य का स्वरूप
भारतीय साहित्य के अध्ययन की समस्याएँ
भारतीय साहित्य में आज के भारत का बिंब
भारतीयता का समाजशास्त्र
हिन्दी साहित्य में भारतीय मूल्यों की अभिव्यक्ति

इकाई-02-

बँगला, उडिया, भाषा के साहित्य का इतिहास, प्रमुख कृतिकारों का परिचय तथा महत्वपूर्ण कृतियाँ।

इकाई-03-

तुलनात्मक अध्ययन-बँगला साहित्य, उडिया साहित्य और हिन्दी साहित्य

इकाई-04-

नाटक- हयवदन- गिरीश कर्नाड (कन्नड) से आलोचनात्मक प्रश्न

इकाई-05-

लघुत्तरीय प्रश्न एवं वस्तुनिष्ठ अतिलघुत्तरीय प्रश्न संपूर्ण पाठ्यक्रम से किया जायेगा।



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. हिन्दी

इकाई विभाजन अंक विभाजन

इकाई 01— आलोचनात्मक प्रश्न	01	15x1	= 15
इकाई 02— आलोचनात्मक प्रश्न	01	15x1	= 15
इकाई 03— आलोचनात्मक प्रश्न	01	15x1	= 15
इकाई 04— आलोचनात्मक प्रश्न	01	15x1	= 15
इकाई 05— लघुत्तरीय प्रश्न (पाँच)		5x2	= 10
अतिलघुत्तरीय / वस्तुनिष्ठ प्रश्न(दस)		10x1	= 10
		योग—	80
		आंतरिक मूल्यांकन—	20

सहायक पुस्तकें:—

1. भारतीय साहित्य संपादक डा० नगेन्द्र
2. भारतीय साहित्य कोश सम्पादक डा० नगेन्द्र
3. बंगला साहित्य का इतिहास — भारतीय भाषा संस्थान इलाहाबाद
4. भारतीय भाषाओं के साहित्य का इतिहास—केन्द्रीय हिन्दी निदेशालय दिल्ली
5. भारतीय साहित्य — डा० मूल चंद्र गौतम
6. हिन्दी साहित्य का इतिहास— आचार्य रामचंद्र शुक्ल
7. हिन्दी साहित्य का इतिहास—डा० नगेन्द्र



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. हिन्दी

सेमेस्टर-IV

प्रश्नपत्र-1 (अनिवार्य)
पाश्चात्य काव्यशास्त्र

पूर्णांक:- 100

मुख्य सेमेस्टर परीक्षा :- 80

आंतरिक मूल्यांकन :- 20

प्रस्तावना :-

रचना के वैशिष्ट्य और मूल्यबोध के उद्घाटन के लिए काव्यशास्त्र का ज्ञान अपरिहार्य है। इनसे साहित्यिक समझ विकसित होती है। वह दृष्टि मिलती है जिसके आधार पर साहित्य के मर्म और मूल्य की वास्तविक परख की जा सके। सामाजिक-सांस्कृतिक परिवेश के साथ रचना का आस्वाद प्राप्त करने, रचना को उसकी समग्रता में समझाने और जाँचने परखने के लिए पाश्चात्य काव्यशास्त्र का अध्ययन समीचीन है-

पाठ्य विषय-

इकाई-01- प्लेटो- काव्य सिद्धांत, अरस्तू-अनुकरण सिद्धांत, त्रासदी विवेचन,

इकाई-02- लांजाइनस-उदात्त की अवधारणा, वर्ड्सवर्थ काव्यभाषा का सिद्धांत
कालरिज कल्पना सिद्धांत और ललित कल्पना

इकाई-03- मैथ्यू आर्नाल्ड-आलोचना का स्वरूप और प्रकार्य

टी. एस. इलियट-परंपरा की परिकल्पना, और वैयक्तिक प्रज्ञा, निर्वेयत्तिकता का सिद्धांत, वस्तुनिष्ठ समीकरण, संवेदनशीलता का असाहचर्य

इकाई-04- आई. ए. रिचर्ड्स-रागात्मक अर्थ, संवेगों का संतुलन, व्यवहारिक आलोचना

सिद्धांत एवं वाद-अभिजात्यवाद, स्वच्छन्दतावाद, अभिव्यंजनावाद, मार्क्सवाद, मनोविश्लेषणवाद तथा अस्तित्ववाद

इकाई-05- लघुत्तरीयप्रश्न एवं अतिलघुत्तरीय/वस्तुनिष्ठ प्रश्न संपूर्ण पाठ्यक्रम से किया जायेगा।



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. हिन्दी

इकाई विभाजन		अंक विभाजन	
इकाई 01— आलोचनात्मक प्रश्न	01	15x1	= 15
इकाई 02— आलोचनात्मक प्रश्न	01	15x1	= 15
इकाई 03— आलोचनात्मक प्रश्न	01	15x1	= 15
इकाई 04— आलोचनात्मक प्रश्न	01	15x1	= 15
इकाई 05— लघुत्तरीय प्रश्न (पाँच)		05x2	= 10
अतिलघुत्तरीय / वस्तुनिष्ठ प्रश्न(दस)		10x1	= 10
		योग—	80
		आंतरिक मूल्यांकन—	20

सहायक पुस्तकें:—

1. भारतीय एवं पाश्चात्य काव्य सिद्धांत — डा० गणपति चंद्रगुप्त
2. पश्चात्य काव्यशास्त्र — डा० विजयबहादुर सिंह
3. साहित्य समीक्षा के मानदण्ड — डा० राजेन्द्र कुमार
4. साहित्य रूप — श्री रामअवध द्विवेदी
5. पाश्चात्य काव्यशास्त्र — श्री देवेन्द्रनाथ शर्मा



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. हिन्दी

सेमेस्टर-IV

प्रश्नपत्र-II (अनिवार्य)

छायावादोत्तर काव्य

पूर्णांक:- 100

मुख्य सेमेस्टर परीक्षा :- 80

आंतरिक मूल्यांकन :- 20

प्रस्तावना-

स्वतंत्रता के बाद मोहभंग की स्थिति ने जन्म लिया। स्वप्न अधूरे रहे, संकल्प टूटे। आक्रोश और विद्रोह की प्रवृत्ति व्यापक पैमाने पर परिलक्षित हुई। विज्ञान ने बौद्धिकता का विकास किया, फलस्वरूप नये-नये बिंब, प्रतीक एवं अभिव्यंजना-रूप विकसित हुए। अंतर्विरोधी स्थितियों ने मूल्य विघटन, तनाव संक्रमण, मोहभंग की स्थिति पैदा की, जिसकी अभिव्यंजना विविध रूपों में हुई। वर्तमान समस्याओं, संवेदनाओं की व्यापकता विश्वजनीन हो गई है। इस वैश्विक-संदर्भ की जानकारी और समझदारी के लिए छायावादोत्तर काव्य का अध्ययन आवश्यक है।

इकाई-01- स. ही. वात्स्यायन 'अज्ञेय' व्याख्या-

1. नदी के द्वीप
2. असाध्य वीणा
3. बाबरा अहेरी
4. यह द्वीप अकेला
5. कलगी बाजरे की
6. हरीघास पर क्षण भर
7. अन्तः सलिला
8. हिरोशिमा

आलोचना- 'अज्ञेय' व्यक्तित्व एवं कृतित्व भावपक्ष, कलापक्ष, काव्य की विशेषताएं काव्यकला,

इकाई-02- गजानन माधव मुक्तिबोध व्याख्या - अंधेरे में

आलोचना- मुक्तिबोध व्यक्तित्व एवं कृतित्व भावपक्ष, कलापक्ष, काव्य की विशेषताएं काव्यकला, लम्बी कविताओं की परंपरा - अंधेरे में



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. हिन्दी

इकाई-03- नागार्जुन व्याख्या-

1. बादल को घिरते देखा है।
2. सिंदूर तिलकित माल
3. वसंत की आगवानी
4. कोई आए तुमसे सीखे
5. तो फिर क्या हुआ
6. यह तुम थी
7. कोयल आज बोली है।
8. अकाल और उसके बाद
9. शासन की बंदूक
10. प्रेत का बयान

आलोचना- नागार्जुन व्यक्तित्व एवं कृतित्व, भावपक्ष, कलापक्ष, काव्य की विशेषताएं, काव्यकला,

इकाई-04- निम्नांकित कवियों का सामान्य अध्ययन किया जाना है।

1. श्रीकांत वर्मा
2. दुष्यंत कुमार
3. धूमिल
4. रघुवीर सहाय
5. धर्मवीर भारती

इकाई-05- लघुत्तरीय वस्तुनिष्ठ/अतिलघुत्तरीय प्रश्न संपूर्ण पाठ्यक्रम से किया जायेगा।

इकाई विभाजन अंक विभाजन

इकाई 01-	आलोचनात्मक प्रश्न	01	15x1	= 15
इकाई 02-	आलोचनात्मक प्रश्न	01	15x1	= 15
इकाई 03-	आलोचनात्मक प्रश्न	01	15x1	= 15
इकाई 04-	आलोचनात्मक प्रश्न	01	15x1	= 15
इकाई 05-	लघुत्तरीय प्रश्न (पाँच)		5x2	= 10
	अतिलघुत्तरीय/वस्तुनिष्ठ प्रश्न(दस)		10x1	= 10
	योग-			80
	आंतरिक मूल्यांकन-			20

सहायक पुस्तकें-

1. छायावादोत्तर काव्यधारा-डॉ० शिवमंगल सिंह सुमन, डॉ० विजयबहादुर सिंह
2. छायावादोत्तर हिन्दी साहित्य- डॉ० जगमोहन मिश्र
3. नागार्जुन के काव्य में प्रगतिशील चिंतन-डॉ० गोविंद के. बुरसे
4. मुक्तिबोध की लम्बी कविता-संवेदना और शिल्प - डॉ० प्रकाश जेधे
5. अज्ञेय का साहित्य चिंतन - परोक्ष अपरोक्ष नामदेव जासूद
6. आधुनिक हिन्दी साहित्य का इतिहास- डॉ० सूर्यनारायण रणसुभे।

-----00-----



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. हिन्दी

सेमेस्टर-IV
प्रश्नपत्र-III (अनिवार्य)
पत्रकारिता

पूर्णांक:- 100
मुख्य सेमेस्टर परीक्षा :- 80
आंतरिक मूल्यांकन :- 20

प्रस्तावना-

पत्रकारिता आज जीवन समाज की धड़कन बन गई है। सिमटते हुए विश्व में स्नायु तंतुओं के समान काम कर रही है। दैनिक समाचार पत्र से लेकर साप्ताहिक, पाक्षिक, मासिक, त्रैमासिक, वार्षिक पत्रिकाओं, प्रिंट मीडिया, इंटरनेट आदि में इसका विकसित स्वरूप देखा जा सकता है। जिसके बिना आज आदमी का रहना कठिन है। साहित्यिकता के साथ-साथ रोजगारपरकता की आकांक्षा की पूर्ति भी इससे होती है। पुनर्जागरण, स्वतंत्रता, समता, बंधुत्व, नारी तथा दलित जागरण में इसकी क्रांतिकारी भूमिका रही है। अतः इसका अध्ययन आज की अनिवार्यता बन जाती है।

पाठ्य विषय:-

इकाई-01-

1. विश्व पत्रकारिता का उदय
2. भारत में पत्रकारिता का आरम्भ
3. पत्रकारिता: स्वरूप एवं विभिन्न प्रकार
4. हिन्दी पत्रकारिता का उद्भव विकास

इकाई-02-

1. सम्पादन कला के सामान्य सिद्धांत
2. समाचार के विभिन्न स्रोत
3. सम्वाददाता की अर्हता, श्रेणी एवं कार्य पद्धति
4. पत्रकारिता से संबंधित लेखन सम्पादकीय, फीचर, रिपोर्ताज, साक्षात्कार, खोजी-समाचार, अनुवर्तन (फालोअप) आदि की प्रविधि।

इकाई-03-

1. इलेक्ट्रानिक मीडिया की पत्रकारिता-रेडियो, टी.वी., वीडियो, केबल मल्टीमीडिया और इंटरनेट की पत्रकारिता
2. प्रिंट पत्रकारिता मल्टीमीडिया-मुद्रण कला, प्रुफ शोधन, ले आउट तथा पृष्ठ सज्जा।
3. पत्रकारिता का प्रबन्ध प्रशासनिक व्यवस्था, बिक्री, तथा वितरण व्यवस्था।
4. मुक्त प्रेस की अवधारणा।



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. हिन्दी

- इकाई-04-**
1. लोक सम्पर्क तथा विज्ञापन
 2. प्रसार भारती तथा सूचना प्रौद्योगिकी
 3. प्रेस संबन्धी प्रमुख कानून तथा आचार संहिता
 4. प्रजातांत्रिक व्यवस्था में चतुर्थ स्तम्भ के रूप में पत्रकारिता का दायित्व

इकाई-05- लघुत्तरीय एवं अतिलघुत्तरीय / वस्तुनिष्ठ प्रश्न संपूर्ण पाठ्यक्रम से किए जायेंगे।

इकाई विभाजन अंक विभाजन

इकाई 01- आलोचनात्मक प्रश्न	01	15x1	= 15
इकाई 02- आलोचनात्मक प्रश्न	01	15x1	= 15
इकाई 03- आलोचनात्मक प्रश्न	01	15x1	= 15
इकाई 04- आलोचनात्मक प्रश्न	01	15x1	= 15
इकाई 05- लघुत्तरीय प्रश्न	05	5x2	= 10
अतिलघुत्तरीय / वस्तुनिष्ठ प्रश्न	10	10x1	= 10
		योग-	80
		आंतरिक मूल्यांकन-	20

सहायक पुस्तकें-

1. हिन्दी पत्रकारिता-डा० कृष्ण बिहारी मिश्र भारतीय ज्ञानपीठ
2. हिन्दी पत्रकारिता में आठवाँ दशक - भारियोका आफेकेदी-प्रासंगिक प्रकाशन-नई दिल्ली
3. हिन्दी पत्रकारिता के मूल सिद्धांत - श्रीपाल शर्मा-विभूति प्रकाशन दिल्ली
4. खोजी पत्रकारिता - हरिमोहन
5. इन्टरनेट पत्रकारिता- सुरेश कुमार
6. संवाद और संवाददाता- राजेन्द्र-चंडीगढ़ हरियाणा साहित्य अकादमी



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. हिन्दी

सेमेस्टर-IV

प्रश्नपत्र-IV (वैकल्पिक)

(क) लोक साहित्य एवं छत्तीसगढ़ी साहित्य

पूर्णांक:- 100

मुख्य सेमेस्टर परीक्षा :- 80

आंतरिक मूल्यांकन :- 20

हिन्दी जगत में विद्यमान विभाषाओं में अमूल्य लोक साहित्य संपदा विद्यमान है। इसके संकलन, संपादन, सर्वेक्षण, प्रकाशन द्वारा ही अपनी मूल राष्ट्रीय संस्कृति को संरक्षित किया जा सकता है और हिन्दी का जनाधार बढ़ाया जा सकता है।

हिन्दी साहित्य मात्र खड़ी बोली तक सीमित नहीं है उसकी अनेक विभाषाओं में आज भी पर्याप्त साहित्य सृजन किया जा रहा है। प्राचीन साहित्य तो मुख्यतः विभाषाओं में ही प्राप्त है। अस्तु इसके अध्ययन की उपयोगिता निर्विवाद है।

इकाई-01- 1. लोक साहित्य, लक्षण, परिभाषा, क्षेत्र
2. लोक और लोक-वार्ता, लोक-वार्ता और लोक-विज्ञान
3. लोक संस्कृति अवधारणा, लोकवार्ता और लोक संस्कृति, लोक संस्कृति और साहित्य, लोक साहित्य अवधारणा,

इकाई-02- लोक साहित्य के प्रमुख रूपों का संक्षिप्त अध्ययन- लोक गीत, लोक नाट्य, लोक-कथा, लोक-गाथा, लोक-नृत्य, नाट्य लोक संगीत

इकाई-03- छत्तीसगढ़ी साहित्य का इतिहास, प्रवृत्तियाँ, छत्तीसगढ़ी गद्य साहित्य का उद्भव और विकास, विधाएँ-उपन्यास, नाटक, एकांकी, निबन्ध, कहानी, महाकाव्य

इकाई-04- दानलीला-सुन्दरलाल शर्मा

इकाई-05- लघुत्तरीय एवं अतिलघुत्तरीय/वस्तुनिष्ठ प्रश्न सम्पूर्ण पाठ्यक्रम से किये जायेंगे।



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. हिन्दी

इकाई विभाजन	अंक विभाजन
इकाई 01-- आलोचनात्मक प्रश्न	01 15x1 = 15
इकाई 02-- आलोचनात्मक प्रश्न	01 15x1 = 15
इकाई 03-- आलोचनात्मक प्रश्न	01 15x1 = 15
इकाई 04-- आलोचनात्मक प्रश्न	01 15x1 = 15
इकाई 05-- लघुत्तरीय प्रश्न	05 5x2 = 10
अतिलघुउत्तरीय / वस्तुनिष्ठ प्रश्न	10 10x1 = 10
	योग-- 80
	आंतरिक मूल्यांकन-- 20

संदर्भ ग्रंथ सूची

1. लोक साहित्य विज्ञान-डॉ० सत्येन्द्र
2. लोक साहित्य पहचान-रामनारायण उपाध्याय-कालिदास प्रकाशन उज्जैन
3. हिन्दी लोक साहित्य - गणेशदत्त सारस्वत-विद्या विहार कानपुर
4. लोक साहित्य - सुरेश चंद्र त्यागी-मेरठ वि.वि. परिषद
5. छत्तीसगढ़ी लोक साहित्य एवं लोक जीवन का अध्ययन- डॉ० शकुन्तला वर्मा
6. छत्तीसगढ़ी लोक साहित्य का ऐतिहासिक अध्ययन-नंद किशोर तिवारी
7. छत्तीसगढ़ी लोक साहित्य और भाषा- डॉ० बिहारीलाल साहू
8. दानलीला - सुन्दरलाल शर्मा



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. हिन्दी

सेमेस्टर-IV

प्रश्नपत्र-IV (वैकल्पिक)

(ख) लघुशोध प्रबंध

(एम.ए. हिन्दी प्रथम एवं द्वितीय सेमेस्टर में सम्मिलित रूप से 60 प्रतिशत अंक प्राप्त करने वाले विद्यार्थी ही लघुशोध प्रबंध लिखने की पात्रता रखेंगे)

पूर्णांक-100

प्रस्तावना-

अदृश्य को दृश्य, अस्पष्ट को स्पष्ट, अज्ञेय को ज्ञेय और आवृत को अनावृत करने की जिज्ञासा मानव में स्वभाविक रूप से होती है। इसी क्रम में मनुष्य जीवन पर्यन्त अनुसंधान में लगा रहता है। नये-नये उपकरण, नये-नये तथ्य, नयी-नयी उपलब्धियाँ इसी शोध का परिणाम हैं।

हिन्दी भाषा में अनेक विधाओं की रचनाएँ, कहानी, उपन्यास, नाटक, निबन्ध, लघुकथा, कविता, महाकाव्य, खण्डकाव्य, व्यंग्य, यात्रावृत्तान्त, आलेख, संस्मरण, रेखाचित्र आदि निरन्तर प्रकाशित हो रहे हैं। इन प्रकाशित रचनाओं का अध्ययन करना तथा उनकी समीक्षा करना आवश्यक है।

पाठ्य विषय-

1. किसी भी विधा की कम से कम दो अधिक से अधिक चार नवीनतम कृतियों का अध्ययन और समीक्षा
2. समीक्षा कम से कम 80-100 टंकित पृष्ठों में की जायें।
3. छात्र द्वारा चयन की गई कृति का प्रकाशन तीन वर्ष पूर्व हुआ हो।

उदाहरण- छात्र यदि 2017 की मुख्य परीक्षा में शामिल हो रहा है तो उसके द्वारा चयन की गई कृति का प्रकाशन वर्ष 2014 के पहले का नहीं होना चाहिए।

अंक विभाजन

आंतरिक परीक्षक (जो निर्देशक भी हो)- 50 अंक

बाह्य परीक्षक- 50 अंक



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

टीप :- एम.ए. इतिहास सेमेस्टर पद्धति में सेमेस्टर I एवं II में तीन अनिवार्य प्रश्न पत्रों के अतिरिक्त परीक्षार्थियों को कोई एक वैकल्पिक प्रश्न पत्र का चयन करना होगा। प्रत्येक प्रश्न पत्र 100-100 अंकों का होगा। 100 अंकों में 80 अंक सैद्धांतिक एवं 20 अंक आंतरिक मूल्यांकन के होंगे।

प्रथम सेमेस्टर SEMESTER I

प्रश्न पत्र	प्रश्न पत्र का नाम	पूर्णांक	सैद्धांतिक	आंतरिक मूल्यांकन
I	इतिहास पद्धतियां (अनिवार्य) Historical Methods (Compulsory)	100	80	20
II	आधुनिक विश्व (अनिवार्य) Modern world (Compulsory)	100	80	20
III	प्राचीन एवं मध्यकालीन छत्तीसगढ़ (अनिवार्य) Ancient and Medieval Chhattisgarh (Compulsory)	100	80	20
OPTIONAL IV (A)	ग्रेट ब्रिटेन का इतिहास 1815-1885 History of Great Britain 1815-1885	100	80	20
OPTIONAL IV (B)	चीन और जापान का इतिहास 1800-1911 History of China & Japan 1800-1911	100	80	20
OPTIONAL IV (C)	भारतीय इतिहास में नारी-प्राचीन एवं मध्यकालीन Women in Indian History in Ancient Medieval Period	100	80	20
TOTAL				400

द्वितीय सेमेस्टर SEMESTER II

प्रश्न पत्र	प्रश्न पत्र का नाम	पूर्णांक	सैद्धांतिक	आंतरिक मूल्यांकन
I	इतिहास लेखन (अनिवार्य) Historiography (Compulsory)	100	80	20
II	समकालीन विश्व (अनिवार्य) Contemporary world (Compulsory)	100	80	20
III	आधुनिक छत्तीसगढ़ (अनिवार्य) Modern Chhattisgarh (Compulsory)	100	80	20
OPTIONAL IV (A)	आधुनिक इंग्लैण्ड 1885-1956 Modern England 1885-1956	100	80	20
OPTIONAL IV (B)	चीन और जापान का इतिहास 1911-1950 History of China & Japan 1911-1950	100	80	20
OPTIONAL IV (C)	आधुनिक भारत में नारी Women in Modern India	100	80	20
TOTAL				400



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

टीप :- एम.ए. इतिहास सेमेस्टर पद्धति में सेमेस्टर III एवं IV में परीक्षार्थियों को निम्नलिखित खण्ड-अ एवं खण्ड-ब में से किसी एक खण्ड का चयन कर उसके दोनों प्रश्न पत्रों को हल करना होगा। उपरोक्त 4 वैकल्पिक प्रश्न पत्रों में से परीक्षार्थियों को सरल क्रमांक 1, 3 में से कोई एक एवं 2, 4 में से कोई एक वैकल्पिक प्रश्न पत्रों का चयन करना होगा। सभी प्रश्न पत्रों में 100-100 अंक होंगे। 100 अंकों में 80 अंक सैद्धांतिक एवं 20 अंक आंतरिक मूल्यांकन के होंगे।

तृतीय सेमेस्टर SEMESTER III

प्रश्न पत्र	प्रश्न पत्र का नाम	पूर्णांक	सैद्धांतिक	आंतरिक मूल्यांकन
खण्ड अ : मध्यकालीन भारत SECTION A : MEDIEVAL INDIA				
I	सल्तनतकालीन भारतीय राजनय एवं अर्थव्यवस्था (1200 से 1526 ई. तक) Indian polity and economy in Sultanate period (1200-1526 A.D.)	100	80	20
II	सल्तनत कालीन समाज एवं संस्कृति (1200 से 1526 ई.) Society and culture in Sultanate Period (1200-1526 A.D.)	100	80	20
खण्ड ब : आधुनिक भारत SECTION B : MODERN INDIA				
I	आधुनिक भारत 1757 ई. से 1857 ई. तक (राजनीतिक, प्रशासनिक) Modern India 1757 A.D. to 1857 A.D. (Political, Administrative)	100	80	20
II	आधुनिक भारत 1757 ई. से 1857 ई. तक (आर्थिक, सामाजिक, सांस्कृतिक) Modern India 1757 A.D. to 1857 A.D. (Economic, Social, Cultural)	100	80	20
वैकल्पिक प्रश्न पत्र (OPTIONAL PAPER)				
OPTIONAL I	भारतीय राष्ट्रीय आंदोलन का इतिहास (1857 से 1922 ई. तक) History of National Movement (1857 to 1922 A.D.)	100	80	20
OPTIONAL II	भारत का सांस्कृतिक इतिहास (प्रारंभ से 1526 ई. तक) Cultural History of India (Beginning to 1526 A.D.)	100	80	20
OPTIONAL III	भारतीय संविधान और शासन व्यवस्था Indian Constitution and Administrative System	100	80	20
OPTIONAL IV	पर्यटन सिद्धांत Tourism Theory	100	80	20



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

TOTAL	400
-------	-----

टीप :- एम.ए. इतिहास सेमेस्टर पद्धति में सेमेस्टर III एवं IV में परीक्षार्थियों को निम्नलिखित खण्ड-अ एवं खण्ड-ब में से किसी एक खण्ड का चयन कर उसके दोनों प्रश्न पत्रों को हल करना होगा। उपरोक्त 4 वैकल्पिक प्रश्न पत्रों में से परीक्षार्थियों को सरल क्रमांक 1, 3 में से कोई एक एवं 2, 4 में से कोई एक वैकल्पिक प्रश्न पत्रों का चयन करना होगा। सभी प्रश्न पत्रों में 100-100 अंक होंगे। 100 अंकों में 80 अंक सैद्धांतिक एवं 20 अंक आंतरिक मूल्यांकन के होंगे।

चतुर्थ सेमेस्टर SEMESTER IV

प्रश्न पत्र	प्रश्न पत्र का नाम	पूर्णांक	सैद्धांतिक	आंतरिक मूल्यांकन
खण्ड अ : मध्यकालीन भारत SECTION A : MEDIEVAL INDIA				
I	मुगलकालीन भारतीय राजनय एवं अर्थव्यवस्था (1526 से 1750 ई. तक) Indian polity and economy in Mughal period (1526-1750 A.D.)	100	80	20
II	मुगलकालीन समाज एवं संस्कृति (1526 से 1750 ई.) Society and culture in Mughal period (1526-1750 A.D.)	100	80	20
खण्ड ब : आधुनिक भारत SECTION B : MODERN INDIA				
I	आधुनिक भारत 1858 ई. से 1964 ई. तक (राजनीतिक, प्रशासनिक) Modern India 1858 A.D. to 1964 A.D. (Political, Administrative)	100	80	20
II	आधुनिक भारत 1858 ई. से 1964 ई. तक (आर्थिक, सामाजिक, सांस्कृतिक) Modern India 1858 A.D. to 1964 A.D. (Economic, Social, Cultural)	100	80	20
वैकल्पिक प्रश्न पत्र (OPTIONAL PAPER)				
OPTIONAL I	भारतीय राष्ट्रीय आंदोलन का इतिहास (1922 से 1947 ई. तक) History of National Movement (1922 to 1947 A.D.)	100	80	20
OPTIONAL II	भारत का सांस्कृतिक इतिहास (1526 से 1950 ई.) Cultural History of India (Beginning to 1526 AD)	100	80	20
OPTIONAL III	भारतीय की केन्द्रीय तथा प्रांतीय शासन व्यवस्था Central and State Administrative System of India	100	80	20
OPTIONAL IV	पर्यटन सिद्धांत एवं व्यवहार-इतिहास के संदर्भ में Tourism Theory and Principles In Reference of History	100	80	20
TOTAL				400



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

GRAND TOTAL 1600

SEMESTER I PAPER I (COMPULSORY) HISTORICAL METHODS

इतिहास पद्धतियां

इकाई- 1

1. इतिहास का अर्थ एवं परिभाषा
2. इतिहास का स्वरूप
3. इतिहास विज्ञान एवं कला के रूप में
4. इतिहास के प्रकार

इकाई- 2

5. इतिहास का अन्य सभी सामाजिक विज्ञान विषयों के साथ संबंध
6. इतिहास का साहित्य के साथ संबंध
7. इतिहास में तथ्य
8. तथ्यों की व्याख्या

इकाई- 3

9. इतिहास में उपकरण
10. इतिहास में कारण एवं नियतिवाद
11. इतिहास में वस्तुनिष्ठता
12. इतिहास में पूर्वाग्रह

इकाई- 4

13. इतिहास का चक्रवादी सिद्धांत
14. इतिहास का समाज शास्त्रीय सिद्धांत
15. इतिहास का आदर्शवादी सिद्धांत
16. इतिहास का तुलनात्मक सिद्धांत

इकाई- 5

17. इतिहास का आलोचानात्मक सिद्धांत
18. इतिहास का भौतिकवादी सिद्धांत
19. इतिहास का सापेक्षवादी सिद्धांत
20. इतिहासवाद

संदर्भ ग्रंथ :

- (1) झारखण्ड चौबे - इतिहास दर्शन
- (2) के.एल.खुराना एवं आर.के.बंसल - इतिहास लेखन, धारणाएं तथा पद्धतियां
- (3) परमानन्द सिंह - इतिहास दर्शन
- (4) प्रो.राधेशरण - इतिहास पद्धति, इतिहास लेखन
- (5) गोविन्द चन्द्रपांडे - इतिहास स्वरूप एवं सिद्धांत
- (6) ब्रजेश कुमार श्रीवास्तव - इतिहास लेखन : अवधारणा, विधाएं एवं साधन
- (7) E.H.Car - What is History
- (8) R.G. Collingwood - The Idea of History
- (9) बुद्ध प्रकाश - इतिहास दर्शन
- (10) बुद्ध प्रकाश - इतिहास दर्शन उद्देश्य एवं विधि
- (11) मानिक लाल गुप्ता - इतिहास-स्वरूप, अवधारणाएं एवं उपयोगिता
- (12) रामकुमार बेहार, ऋषिराज पांडेय - इतिहास पद्धति एवं इतिहास लेखन
- (13) कौलेश्वर राय - इतिहास दर्शन



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

(14) Erich Kahler - The Meaning of History



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

SEMESTER I PAPER II (COMPULSORY) MODERN WORLD आधुनिक विश्व

इकाई- 1

1. विश्व में पूंजीवाद का विकास
2. साम्राज्यवाद का विकास—इंग्लैंड और फ्रांस में
3. साम्राज्यवाद का विकास—जर्मनी और जापान में
4. इंग्लैंड में उदारवाद का विकास

इकाई- 2

5. बिस्मार्क की आंतरिक एवं विदेश नीति
6. कैसर विलियम द्वितीय की विश्व राजनीति
7. 1900—1910 तक अंतर्राष्ट्रीय संधियां
8. 1912 तक पूर्वी समस्या

इकाई- 3

9. प्रथम एवं द्वितीय बाल्कन युद्ध एवं प्रभाव
10. प्रथम विश्वयुद्ध कारण एवं परिणाम
11. पेरिस की शांति सम्मेलन एवं वर्साय की संधि
12. विश्व में समाजवाद का विकास

इकाई- 4

13. 1917 की रूसी क्रांति
14. बोलेशेविक क्रांति एवं लेनिन
15. राष्ट्रसंघ संगठन
16. राष्ट्रसंघ की उपलब्धियां एवं असफलताएं

इकाई- 5

17. प्रथम विश्वयुद्ध के पश्चात् विश्व आर्थिक मंदी का उदय
18. न्यूडील
19. इटली में फांसीवाद—उदय के कारण
20. मुसोलिनी—गृह एवं विदेश नीति

संदर्भ ग्रंथ :

- (1) दीनानाथ वर्मा — आधुनिक विश्व का इतिहास
- (2) के.एल.खुराना एवं शर्मा — विश्व का इतिहास
- (3) बिनाके — सुदूरपूर्व का इतिहास
- (4) H.G.Wells - World History
- (5) Moon & Parker - Imperialism & world polities
- (6) मथुरालाल शर्मा — आधुनिक यूरोप
- (7) कालूराम शर्मा — आधुनिक विश्व का इतिहास



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. इतिहास

- (8) केटेलबी – आधुनिक यूरोप (1815 से 1919)
- (9) देवेन्द्र सिंह चौहान – आधुनिक यूरोप (1815 से 1919)
- (10) सत्यकेतु विद्यालंकार – एशिया का इतिहास
- (11) जार्ज बर्नादसकी – रूस का इतिहास
- (12) B.V. Rao - History of Modern world
- (13) D.N.Ghosh - The History of Europe
- (14) B.R.Gokhale - Modern Europe
- (15) डॉ.मथुरालाल शर्मा – आधुनिक विश्व
- (16) विपिन बिहारी सिन्हा – आधुनिक विश्व
- (17) दीनानाथ वर्मा एवं शिवकुमार सिंह – विश्व इतिहास का सर्वेक्षण
- (18) जैन एवं माथुर – आधुनिक विश्व
- (19) डॉ.एस.आर. वर्मा – आधुनिक विश्व का इतिहास
- (20) मानिक लाल गुप्ता – विश्व का इतिहास
- (21) इंदिरा अर्जुन देव – समकालीन विश्व का इतिहास (1890–2008)
- (22) बी.एन. लुणिया – आधुनिक पाश्चात्य इतिहास की प्रमुख धाराएं (भाग-2)
- (23) कौलेश्वर राय – आधुनिक एशिया (1839–1949)
- (24) कौलेश्वर राय – आधुनिक यूरोप (1789–1945)



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर(छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

SEMESTER-I PAPER-III (COMPULSORY) ANCIENT & MEDIEVAL CHHATTISGARH प्राचीन एवं मध्यकालीन छत्तीसगढ़

इकाई- 1

1. छत्तीसगढ़ का परिचय एवं भौगोलिक स्थिति
2. छत्तीसगढ़ का नामकरण
3. छत्तीसगढ़ का जनजीवन
4. प्राचीन छत्तीसगढ़-मौर्य वंश के पूर्व तक

इकाई- 2

5. छत्तीसगढ़ में मौर्यकालीन एवं गुप्तकालीन छत्तीसगढ़
6. छत्तीसगढ़ में सातवाहनों का प्रभाव
7. क्षेत्रीय राजवंश-नलवंश, राजर्षितुल्य कुल वंश, शरभपुरीय वंश
8. पाण्डु वंश, छिन्दकनाग वंश, फणिनाग वंश

इकाई- 3

9. छत्तीसगढ़ में कलचुरियों का आगमन
10. छत्तीसगढ़ में कलचुरि वंश रत्नदेव से मोहन सिंह तक
11. कलचुरि कालीन शासन व्यवस्था
12. कलचुरि कालीन आर्थिक दशा

इकाई- 4

13. कलचुरि कालीन सामाजिक एवं सांस्कृतिक दशा
14. कलचुरि स्थापत्य
15. छत्तीसगढ़ में मराठा शासन -बिंबाजी एवं उनका प्रशासन
16. छत्तीसगढ़ में मराठों की सूबा शासन व्यवस्था

इकाई- 5

17. रघुजी तृतीय
18. मराठा कालीन छत्तीसगढ़
19. मराठा कालीन छत्तीसगढ़ की सामाजिक एवं सांस्कृतिक दशा
20. ब्रिटिश नियंत्रण काल

संदर्भ ग्रंथ :

- (1) प्यारेलाल गुप्त - प्राचीन छत्तीसगढ़
- (2) पी.एल. मिश्र - दक्षिण कोशल का प्राचीन इतिहास
- (3) पी.एल. मिश्र - मराठाकालीन छत्तीसगढ़
- (4) भगवान सिंह वर्मा - छत्तीसगढ़ का इतिहास
- (5) राम कुमार बेहार - छत्तीसगढ़ का इतिहास
- (6) एल.एस. निगम - दक्षिण कोशल का इतिहास
- (7) मदनलाल गुप्ता - छत्तीसगढ़दिग्दर्शन भाग 1, भाग 2
- (8) जे.आर. वाल्यानी एवं वासुदेव साहसी - छत्तीसगढ़ का राजनीतिक एवं सांस्कृतिक इतिहास
- (9) सुरेश चंद्र शुक्ल - छत्तीसगढ़ का समग्र अध्ययन
- (10) ऋषिराज पांडेय - छत्तीसगढ़ (दक्षिण कोशल के कलचुरि)
- (11) व्ही.व्ही. मिराशी - कलचुरि नरेश और उनका काल
- (12) श्रीमति शांता शुक्ला - छत्तीसगढ़ की सामाजिक एवं आर्थिक स्थिति



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

SEMESTER-I *Optional*
PAPER-IV (*Optional*) -A)
HISTORY OF GREAT BRITAIN 1815-1885
ग्रेट ब्रिटेन का इतिहास (1815 से 1885)

इकाई- 1

1. 1815 से 1822 तक आंतरिक समस्याएं
2. 1822 से 1830 तक इंग्लैंड की आंतरिक स्थिति
3. कैसलरे की विदेश नीति
4. कैनिंग की विदेश नीति

इकाई- 2

5. ब्रिटेन में उदारवाद का उदय
6. ब्रिटेन में उदारवाद के विकास का कारण
7. 1832 का सुधार अधिनियम
8. 1830 से 1841 तक अन्य सुधार

इकाई- 3

9. चार्टिस्ट आंदोलन
10. ग्रेट ब्रिटेन की विदेश नीति (1830-1841)
11. सर राबर्ट पील
12. लार्ड जॉन रसेल

इकाई- 4

13. लार्ड पामस्टन
14. 1867 का सुधार अधिनियम
15. बेंजामिन डिज़रैली - विदेश नीति
16. नवीन टोरीवाद

इकाई- 5

17. ग्रेट ब्रिटेन और मुक्त व्यापार
18. ग्रेट ब्रिटेन और पूर्वी समस्या (1828-1878)
19. ब्रिटिश साम्राज्यवाद (1880 तक)
20. 1884 तथा 1885 के संसदीय सुधार

संदर्भ ग्रंथ :

- (1) एल.पी. शर्मा - इंग्लैंड का इतिहास
- (2) विद्याधर महाजन - इंग्लैंड का इतिहास
- (3) J.A.R.Marriott - Modern England
- (4) G.M.Trevelyan - Social History of England
- (5) Ramsay Muir - History of England
- (6) बिपीन बिहारी सिन्हा - आधुनिक ग्रेट ब्रिटेन
- (7) मेरियट - आधुनिक इंग्लैंड का इतिहास
- (8) रामकिशोर पाण्डेय - आधुनिक इंग्लैंड का इतिहास
- (9) Maitland - Constitutional History of England



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

SEMESTER-I *Optional*
PAPER-IV (*Optional* -B)
HISTORY OF CHINA & JAPAN 1800 - 1911
चीन और जापान का इतिहास (1800 से 1911 तक)

इकाई- 1

1. चीन में यूरोपियों का प्रवेश
2. प्रथम अफीम युद्ध - कारण एवं परिणाम
3. द्वितीय अफीम युद्ध - कारण एवं परिणाम
4. ताइपिंग विद्रोह

इकाई- 2

5. जापान में यूरोपियों का प्रवेश
6. जापान में शोगुन व्यवस्था
7. शोगुन व्यवस्था का अंत और मेईजी पुर्नस्थापना के कारण
8. मेईजी काल में जापान का आधुनिकीकरण

इकाई- 3

9. चीन में विदेशी साम्राज्य का प्रसार एवं चीन की लूट-खसोट
10. जापान का औद्योगिकीकरण
11. चीन-जापान युद्ध-कारण एवं परिणाम
12. चीन में बॉक्सर विद्रोह कारण, घटनाएं एवं परिणाम

इकाई- 4

13. आंग्ल-जापान संधि 1902, कारण एवं परिणाम
14. रूस जापान युद्ध - कारण एवं परिणाम
15. देशोत्तर अधिकार, खुलेद्वार की नीति
16. ईवाकुरा मिशन, फारमोसा अभियान

इकाई- 5

17. 1895 से 1911 तक चीन में राजनीतिक सुधार आंदोलन
18. चीन में 1911 की क्रांति - कारण, प्रसार, परिणाम एवं महत्व
19. डॉ. सनयात् सेन
20. मंचूवंश के पतन के कारण

संदर्भ ग्रंथ :

- (1) बिनाके - सुदूरपूर्व का इतिहास
- (2) सत्यकेतु विद्यालंकार - एशिया का इतिहास
- (3) दीनानाथ वर्मा - एशिया का इतिहास
- (4) क्लाउड - सुदूर पूर्व का इतिहास
- (5) के.एल.खुराना - एशिया का आधुनिक इतिहास
- (6) बुस - द फार ईस्ट
- (7) A.C. Gupta - A History of China
- (8) F.H.B. Clyde - The Far East
- (9) Goodridge - A Short History of Far East



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

SEMESTER-I *Optional* PAPER-IV (.....-C)

WOMEN IN INDIAN HISTORY - ANCIENT & MEDIEVAL PERIOD भारतीय इतिहास में नारी—प्राचीन एवं मध्यकालीन

इकाई— 1

1. नारी अध्ययन की विचार धारा, उदारवादी, समाजवादी, मार्क्सवादी, मनोवैज्ञानिक
2. नारी अध्ययन संबंधी स्रोत—ऐतिहासिक स्रोत
3. नारी अध्ययन की स्रोत गैर अभिलेखागारीय
4. नारी अध्ययन का महत्व एवं उपयोगिता

इकाई— 2

5. वैदिक साहित्य एवं महाकाव्य में नारी चित्रण
6. मौर्य एवं मौर्योत्तर काल में नारी की स्थिति
7. गुप्त एवं गुप्तोत्तर काल में नारी की स्थिति
8. राजपूत काल में नारी की स्थिति

इकाई— 3

9. बौद्ध धर्म में महिलाओं की स्थिति
10. जैन धर्म में महिलाओं की स्थिति
11. ईस्लाम में महिलाओं की स्थिति
12. सिक्ख धर्म में महिलाओं की स्थिति

इकाई— 4

13. प्राचीन भारत में महिला शिक्षा
14. मध्यकालीन भारत में महिला शिक्षा
15. प्राचीन भारत में महिलाओं की वैधानिक स्थिति
16. मध्यकालीन भारत में महिलाओं की वैधानिक स्थिति

इकाई— 5

17. प्राचीन कालीन दक्षिण भारत में महिलाओं की दशा
18. भक्ति आंदोलन और महिलाएं
19. मध्यकालीन राजनीति और महिलाएं
20. मध्यकालीन मराठा राजनीति एवं महिलाएं

संदर्भ ग्रंथ :

- (1) कमलेश्वर प्रसाद — भारत का इतिहास खंड 1, 2, 3
- (2) सुगम आनंद — भारतीय इतिहास में नारी
- (3) के.सी.श्रीवास्तव — प्राचीन भारत का इतिहास तथा संस्कृति
- (4) सुरेश चंद्र शुक्ला — भारतीय इतिहास में नारी
- (5) रामधारी सिंह दिनकर — संस्कृति के चार अध्याय
- (6) पुरी, दास, चोपड़ा — भारत का सामाजिक, आर्थिक, सांस्कृतिक इतिहास (भाग 1 एवं 2)
- (7) प्रताप सिंह — आधुनिक भारत का सामाजिक, आर्थिक इतिहास
- (8) राम शरण शर्मा — प्राचीन भारत
- (9) सुधा गोस्वामी — भारत की चर्चित महिलाएं
- (10) डॉ.एम.के. गिरि — द रोल एंड स्टेट्स ऑफ वीमन इन सिक्खिज्म
- (11) राजपाल — वीमेन इन अरली मिडिवल नार्थ इंडिया



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

SEMESTER-II PAPER-I (COMPULSORY) HISTORIOGRAPHY इतिहास लेखन

इकाई- 1

1. यूनानी एवं रोमन इतिहास लेखन
2. चीनी इतिहास लेखन
3. मध्यकालीन यूरोपीय इतिहास लेखन
4. प्रबुद्धतावादी इतिहास लेखन

इकाई- 2

5. अरबी तथा परशियन (फारसी) इतिहास लेखन
6. प्राचीन भारत में इतिहास लेखन की परम्परा
7. मध्यकालीन भारतीय इतिहास लेखन-सल्तनत काल
8. मध्यकालीन भारतीय इतिहास लेखन-मुगल कालीन

इकाई- 3

9. भारतीय इतिहास की साम्राज्यवादी व्याख्या
10. भारतीय इतिहास की राष्ट्रवादी व्याख्या
11. भारतीय इतिहास की मार्क्सवादी व्याख्या
12. भारतीय इतिहास की सवालटर्न अथवा जनवादी व्याख्या

इकाई- 4

13. भारतीय इतिहास की विषय वस्तु-आर्थिक इतिहास
14. भारतीय इतिहास की विषय वस्तु-सामाजिक-सांस्कृतिक इतिहास
15. जातीय एवं जनजातीय इतिहास
16. क्षेत्रीय इतिहास लेखन

इकाई- 5

17. भारतीय इतिहास की विषय वस्तु-कृषक एवं श्रमिक
18. भारतीय इतिहास की विषय वस्तु-विज्ञान एवं प्रौद्योगिकी
19. भारतीय इतिहास की विषय वस्तु-नारी
20. भारतीय इतिहास लेखन में वामपंथी, दक्षिण पंथी वाद-विवाद

संदर्भ ग्रंथ :

- (1) गोविन्द चन्द्र पांडे - इतिहास स्वरूप एवं सिद्धांत
- (2) के.एल.खुराना, आर.के.बंसल - इतिहास-लेखन, धारणाएं तथा पद्धतियां
- (3) प्रो. राधेशरण - इतिहास पद्धतियां इतिहास लेखन
- (4) कौलेश्वर राय - इतिहास दर्शन
- (5) कंवर बहादुर कौशिक - इतिहास दर्शन एवं भारतीय-इतिहास लेखन
- (6) Gyanendra Pandey & Subaltern Studies
- (7) ई. श्रीधरन - इतिहास लेख एक पाठ्य पुस्तक 500 ई.पूसे 2000 तक
- (8) S.P.Sen - History & Historiography in Modern India
- (9) Ranjit Guha - Subaltern Studies (All Volumes)
- (10) बी.के. श्रीवास्तव - इतिहास के सिद्धांत स्वरूप एवं इतिहास लेखन
- (11) हेरम्ब चतुर्वेदी - मध्यकालीन इतिहासकार
- (12) R.C.Majumdar - Historiography of Modern India



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. इतिहास

(13) बी. शेख अली – हिस्ट्री इट्स थ्योरी एंड मेथड

(14) ए.आर. देसाई – Peasant struggles in India

SEMESTER-II

PAPER-II (COMPULSORY)

CONTEMPORARY WORLD

समकालीन विश्व

इकाई- 1

1. जर्मनी में नाजीवाद का उदय-कारण
2. हिटलर की गृह नीति
3. हिटलर की विदेश नीति
4. जापान में सैन्यवाद

इकाई- 2

5. द्वितीय विश्व युद्ध – कारण एवं परिणाम
6. संयुक्त राष्ट्रसंघ – उद्देश्य एवं संगठन
7. संयुक्त राष्ट्रसंघ – उपलब्धियां एवं योगदान
8. निशस्त्रीकरण की समस्याएं

इकाई- 3

9. चीनी क्रांति 1911
10. चीन में गृहयुद्ध एवं राष्ट्रवादी सरकार की स्थापना।
11. चीन में साम्यवादी सरकार का अभ्युदय।
12. हिन्द चीन एवं इंडोनेशिया में राष्ट्रीय आंदोलन

इकाई- 4

13. शीत युद्ध – परिभाषा एवं स्वरूप
14. शीत युद्ध – अंतर्राष्ट्रीय संधियां एवं तनाव
15. साम्यवादी रूस का विघटन – कारण एवं परिणाम
16. एक ध्रुवीय विश्व

इकाई- 5

17. गुटनिरपेक्ष आंदोलन एवं भारत, पंचशील
18. अरब राष्ट्रवाद
19. आधुनिक तुर्की
20. अंतर्राष्ट्रीय समस्या – फिलीस्तीन, कोरिया एवं वियतनाम

संदर्भ ग्रंथ :

- (1) दीनानाथ वर्मा – आधुनिक विश्व का इतिहास
- (2) सत्यकेतु विद्यालंकार – एशिया का इतिहास
- (3) के.एल.खुराना एवं शर्मा – विश्व का इतिहास
- (4) देवेन्द्र सिंह चौहान –समकालीन यूरोप
- (5) S.P. Nanda - History of Modern World
- (6) सुरेश चंद्र एवं शिवकुमार – आधुनिक विश्व का इतिहास



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

- (7) कालू राम शर्मा – आधुनिक विश्व
- (8) ई.एच.कार – दो विश्व युद्ध के बीच
- (9) जैन एवं माथुर – विश्व का इतिहास
- (10) D.G.E. Hall - Soul Eorl Asia
- (11) B.V.E. Rao - History of World
- (12) Leyender - The Mieldle East
- (13) A.C.Ray - Contemporary World since 1919
- (14) P.K. Chhatterjee - Modern World
- (15) D.C.Bhattacharya - International relation in the 20th century
- (16) अजय चंद्र बनर्जी – माडर्न वर्ल्ड
- (17) अर्जुन देव, इंदिरा अर्जुन देव – समकालीन विश्व का इतिहास (1890–2008)
- (18) बी.एन.लुणिया – आधुनिक पाश्चात्य इतिहास की प्रमुख धाराएं (भाग-2)
- (19) कौलेश्वर राय – आधुनिक यूरोप (1789–1945)



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. इतिहास

SEMESTER-II PAPER-III (COMPULSORY) MODERN CHHATTISGARH आधुनिक छत्तीसगढ़

इकाई- 1

1. ब्रिटिश सत्ता की स्थापना
2. ब्रिटिश कालीन प्रशासनिक व्यवस्था
3. ब्रिटिश कालीन छत्तीसगढ़ की सामाजिक, सांस्कृतिक दशा
4. छत्तीसगढ़ के रियासतों के प्रति ब्रिटिश नीति

इकाई- 2

5. 1857 का विप्लव – छत्तीसगढ़ में सिपाही विद्रोह
6. जमींदारी विद्रोह – वीरनारायण सिंह
7. बस्तर में आदिवासी विद्रोह – 1876 एवं 1910
8. छत्तीसगढ़ में राष्ट्रीय आंदोलन 1920 तक

इकाई- 3

9. छत्तीसगढ़ में असहयोग आंदोलन
10. छत्तीसगढ़ में सविनय अवज्ञा आंदोलन
11. छत्तीसगढ़ में जंगल सत्याग्रह
12. छत्तीसगढ़ में व्यक्तिगत सत्याग्रह

इकाई- 4

13. छत्तीसगढ़ में भारत छोड़ो आंदोलन
14. छत्तीसगढ़ में किसान आंदोलन
15. छत्तीसगढ़ में श्रमिक आंदोलन
16. छत्तीसगढ़ में रियासतों का विलीनीकरण

इकाई- 5

17. छत्तीसगढ़ में धार्मिक आस्थाएँ, शैव, वैष्णव, शाक्त, जैन एवं बौद्ध धर्म
18. छत्तीसगढ़ में कबीर एवं सतनाम पंथ
19. छत्तीसगढ़ की लोक संस्कृति
20. छत्तीसगढ़ राज्य निर्माण की पृष्ठभूमि

संदर्भ ग्रंथ :

1. किशोर अग्रवाल – बीसवीं शताब्दी का छत्तीसगढ़
2. किशोर अग्रवाल – स्वातंत्र्योत्तर छत्तीसगढ़
3. अरविंद शर्मा – छत्तीसगढ़ का इतिहास
4. तृषा शर्मा – छत्तीसगढ़ इतिहास, संस्कृति एवं परंपरा
5. अशोक शुक्ला – का रातनीतिक इतिहास
6. भगवान सिंह वर्मा – छत्तीसगढ़ का इतिहास
7. सुरेश चन्द्र – छत्तीसगढ़ का समग्र इतिहास
8. हीरालाल शुक्ला – छत्तीसगढ़ का इतिहास
9. दिनेश कुमार राठौर – कांकेर का इतिहास
10. ऋषिराज पांडेय – सारंगढ़ रियासत



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. इतिहास

11. देवेश चौबे – मध्यप्रांत में छत्तीसगढ़
12. रश्मि चौबे – राष्ट्रीय चेतना के विकास में छत्तीसगढ़ के साहित्यकारों का योगदान "पंडित सुंदरलाल शर्मा के विशेष में"

SEMESTER-II

PAPER-IV (-A)

MODERN ENGLAND 1885 - 1956

आधुनिक इंग्लैंड (1885 से 1956 तक)

इकाई- 1

1. ग्लैडस्टन – आयरिश नीति
2. ग्लैडस्टन – गृह नीति
3. सेलिसबरी – गृह नीति

इकाई- 2

4. सेलिसबरी – विदेश नीति
5. चेम्बरलेन का साम्राज्यवाद
6. 1911 का सुधार अधिनियम
7. इंग्लैंड की गृह नीति (1902-1914)

इकाई- 3

8. इंग्लैंड की विदेश नीति (1902-1914)
9. इंग्लैंड और पूर्वी समस्या (1878-1914)
10. प्रथम विश्व युद्ध में इंग्लैंड की भूमिका
11. दो विश्व युद्धों के बीच इंग्लैंड

इकाई- 4

12. विश्व आर्थिक मंदी और इंग्लैंड
13. अफ्रीका के विभाजन में इंग्लैंड की भूमिका
14. ग्रेट ब्रिटेन की गृह नीति (1919-1939)
15. ग्रेट ब्रिटेन की विदेश नीति (1919-1935)

इकाई- 5

16. चेम्बरलेन की तुष्टीकरण की नीति (1936-1939)
17. द्वितीय विश्व युद्ध में इंग्लैंड की भूमिका
18. द्वितीय विश्व युद्ध के पश्चात् इंग्लैंड की स्थिति
19. इंग्लैंड और शीत युद्ध

संदर्भ ग्रंथ :

- (1) एल.पी.शर्मा – इंग्लैंड का इतिहास
- (2) विद्याधर महाजन – इंग्लैंड का इतिहास
- (3) J.A.R. Marriott - Modern England
- (4) G.M. Trevelyan - Social History of England
- (5) अरुण कुमार मित्तल – इंग्लैंड का इतिहास
- (6) रमेश चंद्र सिन्हा – इंग्लैंड का इतिहास
- (7) Ramsay Muir - History of England



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. इतिहास

SEMESTER-II *Optional*
PAPER-IV (-B)
HISTORY OF CHINA & JAPAN 1911-1950
चीन और जापान का इतिहास (1911 से 1950 तक)

इकाई- 1

1. चीनी गणराज्य
2. युवान-शिह-काई का शासन
3. चीन एवं प्रथम विश्व युद्ध
4. चीन में राष्ट्रवादी सरकार की स्थापना

इकाई- 2

5. नानकिंग की गणतंत्र (कुओमिंगतांग सरकार)
6. जापान एवं प्रथम विश्व युद्ध
7. जापान का आधुनिकीकरण - कारण एवं प्रगति
8. जापान में सैन्यवाद

इकाई- 3

9. जापान में साम्राज्यवाद 1932-1939
10. चीन में गृह युद्ध
11. चीन में राष्ट्रवादियों की पराजय
12. मंचूरिया संकट

इकाई- 4

13. चीन में साम्यवाद का उत्कर्ष
14. चीन में औद्योगिकीकरण
15. जापान एवं एंटिकोमिंटर्न पैक्ट
16. चीन-जापान में द्वितीय युद्ध

इकाई- 5

17. चीन एवं द्वितीय विश्व युद्ध
18. द्वितीय विश्व युद्ध में जापान का प्रवेश
19. चीन में साम्यवादी सरकार
20. द्वितीय विश्व युद्ध में जापान के पराजय का कारण

संदर्भ ग्रंथ :

- (1) बिनाके - सुदूरपूर्व का इतिहास
- (2) सत्यकेतु विद्यालंकार - एशिया का इतिहास
- (3) दीनानाथ वर्मा - एशिया का इतिहास
- (4) क्लाउड - सुदूरपूर्व का इतिहास
- (5) के.एल.खुराना - एशिया का आधुनिक इतिहास
- (6) बुस - द फार ईस्ट
- (7) A.C. Gupta - A History of China
- (8) F.H.B. Clyde - The Far East



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. इतिहास

(9) Goodridge - A Short History of Far East

SEMESTER-II *Optional*

PAPER-IV (*Optional*) -C

WOMEN IN MODERN INDIA

आधुनिक भारत में नारी

इकाई- 1

1. औपनिवेशिक काल में नारी शिक्षा
2. पुनर्जागरण आंदोलन और महिलाएं
3. उन्नीसवीं शताब्दी के नारी संगठन
4. बीसवीं शताब्दी के नारी संगठन

इकाई- 2

5. भारतीय स्वतंत्रता आंदोलन और महिलाएं, 1857 की क्रांति
6. भारतीय स्वतंत्रता आंदोलन और महिलाएं, गांधीवादी आंदोलन
7. भारतीय स्वतंत्रता आंदोलन और महिलाएं, क्रांतिकारी आंदोलन
8. भारतीय स्वतंत्रता आंदोलन और महिलाएं, आजाद हिंद फौज

इकाई- 3

9. स्वतंत्रता के पश्चात् राजनीति और महिलाएं- पंचायत
10. स्वतंत्रता के पश्चात् राजनीति और महिलाएं- विधानसभा से संसद तक
11. मताधिकार और महिलाएं
12. पंचवर्षीय योजनाएं और महिलाएं

इकाई- 4

13. भारतीय संविधान में महिलाओं की स्थिति
14. स्वतंत्रोत्तर भारत में महिलाओं की वैधानिक स्थिति
15. जनजातीय समाज में महिलाओं की स्थिति
16. महिलाओं के प्रति हिंसा एवं अपराध

इकाई- 5

17. महिलाएं - कला एवं साहित्य के क्षेत्र में
18. मानवाधिकार एवं महिलाएं
19. स्वतंत्रोत्तर भारत में महिला शिक्षा
20. काम काजी महिलाएं - स्वावलंबन एवं सशक्तिकरण

संदर्भ ग्रंथ :

- (1) कमलेश्वर प्रसाद - भारत का इतिहास खंड 1, 2, 3
- (2) सुगम आनंद - भारतीय इतिहास में नारी
- (3) विपिन चंद्र - आजादी के बाद का भारत
- (4) पुरी, दास, चोपड़ा - भारत का सामाजिक, आर्थिक, सांस्कृतिक इतिहास (खंड तीन)
- (5) प्रताप सिंह - आधुनिक भारत का सामाजिक, आर्थिक इतिहास
- (6) आनंद मूर्ति - भारतीय इतिहास में नारी
- (7) गोपा जोशी - भारत में स्त्री असमानता
- (8) नीतू केंग - इंडियन वीमेन एक्टीविस्ट
- (9) सी.एन.मंगल, यशोदा भट्ट - बीयांड द थ्रेस होल्ड-इंडियन वीमेन ऑन द मूव



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. इतिहास

- (10) सुधा गोस्वामी – भारत की चर्चित महिलाएं
- (11) कौरोलिय एम बायर्ली और कारेन रास – महिलायें और संचार माध्यम
- (12) साधना आर्य, नवोदिता मेनन आदि (संपादक) – नारीवादी राजनीति संघर्ष एवं मुद्दे
- (13) यशोदा भट्ट – वीमेन इन इंडिया इन फिफ्टी इयर्स ऑफ इंडिपेंडेंस
- (14) वृंदा करात – भारतीय नारी संघर्ष और मुक्ति

SEMESTER-III

PAPER-I

खण्ड-अ मध्यकालीन भारत (Section -A Medieval India)

सल्तनतकालीन भारतीय राजनय एवं अर्थव्यवस्था (1200 से 1526 ई.)

(INDIAN POLITY AND ECONOMY IN SULTANATE PERIOD (1200-1526 A.D.)

इकाई- 1

1. सल्तनत कालीन इतिहास के स्रोत
2. दिल्ली सल्तनत की स्थापना एवं प्रसार
3. सल्तनत कालीन इतिहास लेखन – विभिन्न विचारधाराएं
4. सल्तनत कालीन राज्य का स्वरूप एवं सिद्धांत

इकाई- 2

5. सल्तनत कालीन केन्द्रीय प्रशासन
6. सल्तनत कालीन प्रांतीय व्यवस्था-इक्ता
7. अलाउद्दीन खिलजी की आर्थिक नीति-बाजार नियंत्रण
8. अलाउद्दीन खिलजी की विजयें-उत्तर भारत, दक्षिण भारत

इकाई- 3

9. मुहम्मद बिन तुगलक की योजनाएं
10. फिरोजशाह तुगलक का प्रशासन
11. सल्तनतकालीन क्षेत्रीय राज्य – उत्तर भारत
12. सल्तनतकालीन क्षेत्रीय राज्य – दक्षिण भारत

इकाई- 4

13. सल्तनतकालीन भूराजस्व व्यवस्था
14. सल्तनतकालीन शिल्प व उद्योग
15. सल्तनतकालीन आंतरिक व्यापार
16. सल्तनतकालीन विदेशी व्यापार

इकाई- 5

17. तैमूर का आक्रमण एवं प्रभाव
18. सल्तनत काल में नगरों का उदय
19. सल्तनत कालीन मुद्राएं एवं बैंकिंग
20. सल्तनत कालीन – कृषि एवं उद्योग

संदर्भ ग्रंथ :

- (1) हरिशचंद्र वर्मा – मध्यकालीन भारत भाग – 1
- (2) ए.एल. श्रीवास्तव – सल्तनतकालीन भारत
- (3) विपिन बिहारी सिन्हा – मध्यकालीन भारत
- (4) बी.एन. लूणिया – पूर्व मध्यकालीन भारत
- (5) इरफान हबीब – सल्तनतकालीन भारत
- (6) एल.पी. शर्मा – मध्यकालीन भारत



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

- (7) हेरम्ब चतुर्वेदी – मध्यकालीन इतिहासकार
(8) सतीश चंद्र – मध्यकालीन भारत—राजनीति, समाज और संस्कृति—आठवीं से सत्रहवीं सदी तक

SEMESTER-III PAPER-II

खण्ड—अ मध्यकालीन भारत (Section -A Medieval India)
सल्तनतकालीन समाज एवं संस्कृति (1200 से 1526 ई. तक)
(SOCIETY AND CULTURE IN SULTANATE PERIOD (1200-1526 A.D.))

इकाई— 1

1. सल्तनत कालीन समाज – संरचना एवं परिवर्तन
2. सल्तनत कालीन नगरीय समाज – नये सामाजिक वर्गों का उदय
3. सल्तनत कालीन हिन्दू समाज
4. सल्तनत कालीन मुस्लिम समाज

इकाई— 2

5. भक्ति आंदोलन – उदय के लिए उत्तरदायी तत्व
6. सगुण भक्ति की विशेषताएं
7. कृष्ण भक्ति शाखा
8. राम भक्ति शाखा

इकाई— 3

9. निर्गुण भक्ति सम्प्रदाय – कबीर और नानक
10. भक्ति आंदोलन की क्षेत्रीय विशेषताएं
11. भक्ति आंदोलन की भारतीय समाज एवं संस्कृति पर प्रभाव
12. भक्ति आंदोलन का साहित्य पर प्रभाव

इकाई— 4

13. सूफीवाद
14. प्रमुख सूफी सिलसिलें और उनकी विशेषताएं
15. इण्डो-इस्लामिक संस्कृति का उदय एवं विकास
16. सल्तनत कालीन विज्ञान एवं तकनीकी

इकाई— 5

17. सल्तनत कालीन स्थापत्य कला
18. सल्तनत कालीन क्षेत्रीय स्थापत्य कला
19. सल्तनत काल में साहित्य का विकास

संदर्भ ग्रंथ :

- (1) बी.के. पंजाबी – मध्यकालीन भारतीय इतिहास
- (2) हरिशचंद्र वर्मा – मध्यकालीन भारत भाग-1
- (3) रामधारी सिंह दिनकर – संस्कृति के चार अध्याय
- (4) बी.एन. लूणिया – पूर्व मध्यकालीन भारत
- (5) विपिन बिहारी सिन्हा – मध्यकालीन भारत
- (6) प्रताप सिंह – मध्यकालीन संस्कृति
- (7) राजबली सिंह – सूफीवाद
- (8) एल.पी. शर्मा – मध्यकालीन भारत
- (9) ए.एल. श्रीवास्तव – मध्यकालीन संस्कृति



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर(छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

(10) पुरी, दास, चोपड़ा
(भाग-2)

– भारत का सामाजिक, आर्थिक एवं सांस्कृतिक इतिहास

SEMESTER-III PAPER-I

खण्ड-ब आधुनिक भारत (Section -B Modern India)
आधुनिक भारत (1757 ई. से 1857 ई. तक) राजनीतिक, प्रशासनिक
(MODERN INDIA 1757 A.D. TO 1857 A.D.) POLITICAL, ADMINISTRATIVE)

इकाई- 1

1. आधुनिक भारतीय इतिहास के स्रोत
2. आधुनिक भारतीय इतिहास लेखन की विचारधाराएं—साम्राज्यवादी राष्ट्रवादी
3. आधुनिक भारतीय इतिहास लेखन की विचारधाराएं—मार्क्सवादी, जनवादी
4. पूर्व औपनिवेशिक भारत की राजनीतिक व्यवस्था

इकाई- 2

5. भारत में यूरोपियों का आगमन
6. कर्नाटक में आंग्ल-फ्रांसीसी प्रतिस्पर्धा
7. बंगाल में अंग्रेजी शक्ति का उदय
8. ब्रिटिश साम्राज्य का विस्तार—नीतियां तथा कार्यक्रम

इकाई- 3

9. आंग्ल- मैसूर संबंध
10. आंग्ल- मराठा संबंध
11. आंग्ल-अफगान संबंध
12. आंग्ल- सिक्ख संबंध

इकाई- 4

13. आंग्ल- अवध संबंध
14. भारत की औपनिवेशिक संरचना-प्रशासनिक स्वरूप
15. संवैधानिक विकास – 1773-1784
16. संवैधानिक विकास – 1784-1854

इकाई- 5

17. कंपनी एवं रियासतों के संबंध
18. कंपनी प्रशासन के अंतर्गत पुलिस, लोकसेवा एवं न्याय व्यवस्था
19. उपनिवेशवाद का प्रतिरोध-जनजातीय व कृषक आंदोलन
20. 1857 की क्रांति-विचारधाराएं, कारण, स्वरूप एवं महत्व

संदर्भ ग्रंथ :

- (1) एल.पी. शर्मा – आधुनिक भारत
- (2) रजनीपाम दत्त – इंडिया टुडे
- (3) प्रताप सिंह – आधुनिक भारत का इतिहास



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

- | | |
|----------------------------|--|
| (4) एम.एस. जैन | – आधुनिक भारत |
| (5) सुमित सरकार | – आधुनिक भारत का इतिहास |
| (6) बी.एल. ग़ोवर एवं यशपाल | – आधुनिक भारत का इतिहास |
| (7) एग्नेस ठाकुर | – भारत का इतिहास 1757–1857 |
| (8) वीरकेश्वर प्रसाद सिंह | – भारतीय राष्ट्रीय आंदोलन एवं संवैधानिक विकास |
| (9) एस.आर. शर्मा | – मेकिंग आफ मार्टन इंडिया |
| (10) बी.बी. मिश्र | – सेंट्रल एडमिनिस्ट्रेशन आफ ईस्ट इंडिया कंपनी |
| (11) शेखर बंधोपाध्याय | – प्लासी से विभाजन तक |
| (12) विपिन चंद्रा | – आधुनिक भारत का इतिहास |
| (13) वी.डी. महाजन | – मार्टन इंडियन हिस्ट्री फ्राम 1707 टू प्रजेन्ट डे |
| (14) के.सी. चौधरी | – हिस्ट्री आफ मार्टन इंडिया |
| (15) कौलेश्वर राय | – आधुनिक भारत 1757–1950 |



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. इतिहास

SEMESTER-III

PAPER-II

खण्ड-ब आधुनिक भारत (Section -B Modern India)
आर्थिक, सामाजिक, सांस्कृतिक (1757 ई. से 1857ई. तक)
(ECONOMIC, SOCIAL, CULTURAL 1757 A.D TO 1857 A.D.)

इकाई- 1

1. पूर्व औपनिवेशिक भारत की आर्थिक व्यवस्था
2. यूरोपीय वाणिज्यवाद का उदय
3. अंग्रेजों की व्यापारिक, वाणिज्यिक नीति
4. कृषि का वाणिज्यीकरण

इकाई- 2

5. ग्रामीण अर्थव्यवस्था - कृषि की स्थिति एवं समस्याएं
6. नवीन भूराजस्व व्यवस्था - स्थाई बंदोबस्त तक
7. नवीन भूराजस्व व्यवस्था- रैयतवाड़ी, महालवाड़ी
8. ग्रामीण ऋण ग्रस्तता, अकाल नीति

इकाई- 3

9. शहरी अर्थव्यवस्था- हस्तशिल्प, उद्योगोंकी स्थिति
10. औद्योगीकरण 1757-1857
11. आंतरिक बाजार और शहरी केन्द्र, विदेश व्यापार
12. धन का निष्कासन

इकाई- 4

13. पूर्व औपनिवेशिक भारत की सामाजिक एवं सांस्कृतिक व्यवस्था
14. भारतीय पुनर्जागरण
15. समन्वयवादी समाज सुधार आंदोलन-बंगाल एवं महाराष्ट्र के संदर्भ में
16. सामाजिक सुधार शासन द्वारा किये गए सुधार कार्य

इकाई- 5

17. प्रतिक्रियावाद - बहावी आंदोलन
18. नवीन सामाजिक वर्गों का उदय
19. शिक्षा का विकास
20. भारतीय प्रेस (1857 तक)

संदर्भ ग्रंथ :



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर(छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

- | | |
|---------------------------------------|--|
| (1) एल.पी. शर्मा | - आधुनिक भारत |
| (2) ए.आर. देसाई | - आधुनिक राष्ट्रवाद की सामाजिक पृष्ठभूमि |
| (3) रजनी पामदत्त | - इंडिया टुडे |
| (4) ग्रीवर एवं यशपाल | - आधुनिक भारत का इतिहास एवं नवीन मूल्यांकन (1707-1969) |
| (5) एस.आर. शर्मा | - मेकिंग आफ मॉडर्न इंडिया |
| (6) प्रताप सिंह | - आधुनिक भारत-1, खंड-3 |
| (7) एम.एस. जैन | - आधुनिक भारत का इतिहास |
| (8) एस.पी. नायर | - सोशल एंड इकोनामिक हिस्ट्री ऑफ मॉडर्न इंडिया |
| (9) S.P. Nanda | - Economic and Social History of Modern India |
| (10) V.A. Narain | - Social History of Modern India |
| (11) एग्नेस ठाकुर | - भारत का आर्थिक इतिहास (1757-1950) |
| (12) पुरी, दास, चोपड़ा | - भारत का सामाजिक आर्थिक एवं सांस्कृतिक इतिहास |
| (13) अरूण भट्टाचार्य | - हिस्ट्री आफ मॉडर्न इंडिया (1757-1947) |
| (14) नीलकंठ शास्त्री | - एडवांस हिस्ट्री ऑफ इंडिया |
| (15) आर.सी. मजुमदार एवं
एच.सी. राय | - ऐन एडवांस हिस्ट्री ऑफ इंडिया |
| (16) कौलेश्वर राय | - आधुनिक भारत 1757-1950 |



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर(छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. इतिहास



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

SEMESTER-III
OPTIONAL - I

भारतीय राष्ट्रीय आंदोलन का इतिहास (1857ई. से 1922ई. तक)
(HISTORY OF NATIONAL MOVEMENT (1857 TO 1922 A.D.))

इकाई- 1

1. 1857 के विप्लव के कारण
2. 1857 के विप्लव का स्वरूप एवं परिणाम
3. भारत में राष्ट्रवाद की वैचारिक पृष्ठभूमि
4. कांग्रेस की स्थापना के पूर्व राजनीतिक संगठन

इकाई- 2

5. भारतीय राष्ट्रीय कांग्रेस की स्थापना – अवधारणाएं एवं उद्देश्य
6. कांग्रेस का नरमपंथी युग – विचारधारा एवं कार्यक्रम
7. कांग्रेस में उग्रवाद का उदय – विचारधारा एवं कार्यक्रम
8. नरमपंथी- उग्रवाद संघर्ष

इकाई- 3

9. बंग-भंग एवं स्वदेशी आंदोलन
10. साम्प्रदायिक राजनीति का उदय, मुस्लिम लीग
11. लखनऊ समझौता
12. होमरूल आंदोलन

इकाई- 4

13. गांधीजी का भारतीय राजनीति में प्रवेश एवं उनके नेतृत्व में प्रारंभिक आंदोलन
14. रोलेक्ट एक्ट
15. जलियावाला बाग हत्याकांड और उसका प्रभाव
16. हण्टर कमीशन रिपोर्ट

इकाई- 5

17. 1919 के अधिनियम
18. क्रांतिकारी आंदोलन-प्रथम चरण-महाराष्ट्र, बंगाल, पंजाब एवं अन्य क्षेत्र
19. असहयोग आंदोलन
20. असहयोग आंदोलन का भारतीय राजनीति पर प्रभाव

संदर्भ ग्रंथ :

- (1) ताराचंद – भारतीय स्वाधीनता आंदोलन का इतिहास भाग 1 व 2
- (2) सुमित सरकार – आधुनिक भारत
- (3) पं.सुंदरलाल शर्मा – भारत में अंग्रेजी राज
- (4) डॉ. आभा सक्सेना – इंडियन नेशनल मूवमेंट एंड द लिबरलस
- (5) ए.आर. देसाई – भारतीय राष्ट्रवाद की सामाजिक पृष्ठभूमि
- (6) शर्मा एवं शर्मा – भारतीय राष्ट्रीय आंदोलन एवं राजनैतिक विकास
- (7) कौलेश्वर राय – फ्रीडम स्ट्रगल



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर(छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. इतिहास

- | | |
|---------------------------|---|
| (8) विपिन चन्द्र | – भारतीय स्वतंत्रता संग्राम का इतिहास |
| (9) बीरकेश्वर प्रसाद सिंह | – भारतीय राष्ट्रीय आंदोलन एवं संवैधानिक विकास |
| (10) रामलखन शुक्ला | – आधुनिक भारत का इतिहास |
| (11) विनोद कुमार सक्सेना | – द पार्टीशन ऑफ बंगाल |
| (12) के.पी. बहादुर | – हिस्ट्री ऑफ फ्रीडम मूवमेंट इन इंडिया |
| (13) योगेन्द्र श्रीवास्तव | – हिस्ट्री ऑफ फ्रीडम मूवमेंट 1857–1947 |
| (14) यशपाल एवं ग्रोवर | – आधुनिक भारत का इतिहास |
| (15) कौलेश्वर राय | – आधुनिक भारत 1757–1950 |



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

SEMESTER-III OPTIONAL - II

भारत का सांस्कृतिक इतिहास (प्रारंभ से 1526 ई. तक)
(CULTURAL HISTORY OF INDIA (BEGINING TO 1526 A.D.))

इकाई- 1

1. हड़प्पाकालीन सामाजिक एवं आर्थिक जीवन
2. हड़प्पाकालीन कला एवं स्थापत्य कला
3. आर्यों का मूल निवास संबंधी अवधारणाएं
4. आर्यों का भारत में प्रसार

इकाई- 2

5. ऋग्वेद कालीन समाज एवं संस्कृति
6. उत्तरवैदिक कालीन समाज एवं संस्कृति
7. वेद, उपनिषद, सूत्र, स्मृतिग्रंथ
8. महाकाव्य युगीन संस्कृति

इकाई- 3

9. महाजनपद कालीन समाज एवं संस्कृति
10. जैन धर्म, बौद्ध धर्म
11. मौर्यकालीन समाज एवं संस्कृति
12. भारतीय संस्कृति में अशोक का योगदान

इकाई- 4

13. गुप्तकालीन समाज एवं धर्म
14. गुप्तकालीन कला विज्ञान एवं साहित्य
15. राजपूत कालीन समाज
16. राजपूत कालीन कला एवं स्थापत्य

इकाई- 5

17. सल्तनत कालीन समाज
18. सल्तनतकालीन संस्कृति की विशेषताएं
19. भक्ति आंदोलन
20. सूफी आंदोलन

संदर्भ ग्रंथ :

- | | |
|-------------------------|---|
| (1) रामशरण शर्मा | — प्राचीन भारत |
| (2) विमल चन्द्र पाण्डेय | — प्राचीन भारत का राजनीतिक, सांस्कृतिक इतिहास |
| (3) रोमिला थापर | — अशोक तथा मौर्य साम्राज्य का पतन |
| (4) के.एन. शास्त्री | — दक्षिण भारत का इतिहास |
| (5) ए.एल. बाशम | — अद्भुत भारत |
| (6) भारद्वाज | — मध्यकालीन भारतीय संस्कृति |
| (7) जयनारायण पांडे | — सिंधु सभ्यता |
| (8) के.सी. श्रीवास्तव | — प्राचीन भारत का इतिहास तथा संस्कृति |



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

- | | |
|--------------------------|---|
| (9) शिवशंकर शर्मा | – भारतीय संस्कृति |
| (10) नीरज श्रीवास्तव | – मध्यकालीन भारत—प्रशासन, समाज एवं संस्कृति |
| (11) रामशरण शर्मा | – प्रारंभिक भारत का परिचय |
| (12) कृष्ण मोहन श्रीमाली | – धर्म, समाज एवं संस्कृति |
| (13) रमेन्द्र नाथ नंदी | – प्राचीन भारत में धर्म के सामाजिक आधार |
| (14) राधाकुमुद मुखर्जी | – हिन्दू सभ्यता |
| (15) बी.एन. लूणिया | – प्राचीन भारतीय संस्कृति |
| (16) राजबली | – सूफीवाद |



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

SEMESTER-III

OPTIONAL - III

भारतीय संविधान और शासन व्यवस्था

INDIAN CONSTITUTION AND ADMINISTRATIVE SYSTEM

इकाई- 1

1. भारत की संविधान सभा का गठन
2. भारत का संविधान सभा की विभिन्न समितियाँ
3. भारतीय संविधान की प्रस्तावना
4. भारतीय संविधान की प्रमुख विशेषताएं

इकाई- 2

5. भारतीय संविधान के स्रोत
6. मौलिक अधिकार एवं संवैधानिक उपचार
7. नीति निर्देशक तत्व
8. मौलिक कर्तव्य

इकाई- 3

9. राष्ट्रपति-निर्वाचन शक्तियाँ एवं कर्तव्य
10. उपराष्ट्रपति-निर्वाचन शक्तियाँ एवं कर्तव्य
11. प्रधानमंत्री एवं मंत्रि परिषद तथा उनके कार्य
12. संसद का गठन - राज्य सभा एवं लोक सभा

इकाई- 4

13. संविधान संशोधन प्रक्रिया एवं प्रमुख संशोधन
14. आपात कालीन उपबंध
15. महान्यायवादी
16. नियंत्रक एवं महालेखा परीक्षक

इकाई- 5

17. सर्वोच्च न्यायालय
18. संघ लोक सेवा आयोग, निर्वाचन आयोग
19. नीति आयोग एवं राष्ट्रीय विकास परिषद
20. वित्त आयोग

संदर्भ ग्रंथ :

- | | |
|------------------|--|
| (1) डी.डी. बसु | - भारत का संविधान एक परिचय |
| (2) हिर मोहन जैन | - भारतीय शासन और राजनीति |
| (3) सुशीला कौशिक | - भारतीय शासन और राजनीति |
| (4) सुभाष कश्यप | - हमारा संविधान |
| (5) R.C Agrawal | - Indian Political System |
| (6) A.G. Noorani | . Constitutional Question in India |
| (7) A. S. Narang | . Indian Government and Politics |
| (8) G. Austin | . The Indian Constitution |
| (9) M.V. Paylee | . An Introduction to the constitution of India |



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. इतिहास

SEMESTER-III

OPTIONAL - IV

पर्यटन सिद्धान्त

TOURISM THEORY

इकाई- 1

1. पर्यटन का अर्थ एवं परिभाषा
2. पर्यटन की अवधारणा
3. पर्यटन का उद्देश्य एवं महत्व
4. पर्यटन के सिद्धान्त एवं व्यवहार

इकाई- 2

5. पर्यटन संगठन
6. भारतीय पर्यटन संगठन केन्द्रीय
7. प्रान्तीय पर्यटन विभाग

इकाई- 3

8. ट्रेवल एजेंसी- गठन
9. ट्रेवल एजेंसी- कार्य
10. पर्यटन एवं यातायात
11. टिकट एवं आरक्षण कार्य

इकाई- 4

12. पर्यटन एवं आवास तथा होटल उद्योग मुद्रा विनिमय
13. अंतर्राष्ट्रीय पर्यटन - पासपोर्ट, वीसा विदेशी संबंधी नियम
14. अंतर्राष्ट्रीय पर्यटन सुविधाएं एवं समस्याएं

इकाई- 5

15. पर्यटन एवं हस्तशिल्प उद्योग
16. पर्यटन एवं कला
17. पर्यटन एवं लोक संस्कृति
18. पर्यटन एवं मेले त्यौहार

संदर्भ ग्रंथ :

- (1) जगमोहन नेगी - पर्यटन एवं यात्रा के सिद्धान्त
- (2) जगमोहन नेगी - पर्यटन एवं मार्केटिंग तथा विकास
- (3) के.के. दीक्षित - पर्यटन के विविध आयाम
- (4) ताज राव - पर्यटन विकास के विविध आयाम
- (5) ताज राव - पर्यटन का प्रभाव एवं प्रबंधन
- (6) ए.के. भाटिया - टूरिज्म डेवलेपमेंट प्रिंसिपल एंड प्रैक्टिसेज
- (7) राम आचार्य - टूरिज्म इन इंडिया



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

SEMESTER-IV PAPER-I

(खंड B मध्यकालीन भारत) (Section - B Medieval India)

मुगलकालीन भारतीय राजनय एवं अर्थव्यवस्था (1526 से 1750 ई. तक)
(INDIAN POLITY AND ECONOMY IN MUGHAL PERIOD (1526-1750 A.D.))

इकाई- 1

1. मुगलकालीन इतिहास के स्रोत
2. मुगलकालीन इतिहास लेखन – विभिन्न विचारधाराएं
3. मुगलकालीन राजनय – दैवीय अधिकार का सिद्धांत
4. मुगल शासकों की राजत्व नीति

इकाई- 2

5. मुगलकालीन केन्द्रीय प्रशासन
6. मुगलकालीन प्रांतीय प्रशासन विशेषताएं
7. मनसब एवं जागीर
8. शेरशाह का प्रशासन

इकाई- 3

9. मुगलकालीन दरबारी राजनीति एवं संघर्ष
10. मराठा इतिहास के स्रोत
11. मराठा राज्य की स्थापना एवं विकास
12. शिवाजी का प्रशासन

इकाई- 4

13. मुगलकालीन कृषि अर्थव्यवस्था एवं भू-राजस्व
14. मुगलकाल में शिल्प उद्योग
15. मुगलकालीन आंतरिक व्यापार
16. मुगलकालीन विदेशी व्यापार

इकाई- 5

17. मुगलकाल में नगरों का उदय-नगरीय प्रशासन
18. मुगलकालीन मुद्रा एवं बैंकिंग
19. नए व्यापारिक वर्गों का उदय
20. मुगल काल में कृषि एवं उद्योग में तकनीकी परिवर्तन

संदर्भ ग्रंथ :

1. हरिशचन्द्र – मध्यकालीन भारत – भाग 2
2. सर जदुनाथ सरकार – शिवाजी एंड हिज टाइम्स
3. ए.एल. श्रीवास्तव – मुगलकालीन भारत
4. बी.एन. लुनिया – मुगल साम्राज्य का उत्कर्ष
5. बी.के. पंजाबी – मध्यकालीन भारत का इतिहास
6. हेरम्ब चतुर्वेदी – मुगलकालीन इतिहासकार
7. हेरम्ब चतुर्वेदी – मुगलकालीन राजनय एवं अर्थव्यवस्था
8. पी.पी. सिन्हा – मध्यकालीन भारत



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

SEMESTER-IV
PAPER-II

(खंड अ मध्यकालीन भारत) (Section - A Medieval India)
मुगलकालीन भारतीय समाज एवं संस्कृति (1526 से 1750 ई. तक)
(SOCIETY AND CULTURE IN MUGHAL PERIOD (1526-1750 A.D.))

इकाई- 1

1. मुगलकालीन हिन्दू समाज
2. मुगलकालीन मुस्लिम समाज
3. मुगलकालीन समाज में शासक वर्ग की भूमिका
4. मुगलकाल में स्त्रियों की दशा

इकाई- 2

5. मुगलकालीन स्थापत्यकला
6. मुगलकालीन क्षेत्रीय स्थापत्य कला
7. मुगलकालीन चित्रकला
8. क्षेत्रीय चित्रकला का विकास

इकाई- 3

9. फारसी भाषा एवं साहित्य का विकास
10. हिन्दी साहित्य का विकास
11. संस्कृत साहित्य का विकास
12. उर्दू भाषा एवं साहित्य का विकास

इकाई- 4

13. मुगलकाल में समन्वयवादी संस्कृति का विकास
14. मुगलकाल में संस्कृति के विकास में अकबर का योगदान
15. समन्वयवादी संस्कृति का विघटन और औरंगजेब
16. मुगलकाल में नृत्य एवं संगीतकला का विकास

इकाई- 5

17. मुगलकाल में धार्मिक आंदोलन
18. सामंती व्यवस्था का समाज पर प्रभाव
19. मराठा संस्कृति की विशेषताएं
20. मुगलकाल में ईसाई धर्म का आगमन

संदर्भ ग्रंथ :

1. आर्शीवादी लाल श्रीवास्तव — मध्यकालीन भारत
2. हरिशचन्द्र वर्मा — मध्यकालीन भारत — 2
3. बी.एन. लुनिया — मुगल साम्राज्य का उत्कर्ष
4. ए.एल. श्रीवास्तव — मध्यकालीन संस्कृति
5. दिनेश चन्द्र भारद्वाज — मध्यकालीन संस्कृति
6. पुरीदास एवं चोपड़ा — भारत का सामाजिक, सांस्कृतिक एवं आर्थिक इतिहास भाग -2
7. एल.पी. शर्मा — मध्यकालीन भारत



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

SEMESTER-IV PAPER-I

(खंड ब आधुनिक भारत) (Section - B. Modern India)
आधुनिक भारत (1858 से 1964 ई. तक) राजनीतिक, प्रशासनिक
(MODERN INDIA 1858 A.D. TO 1964 A.D. (POLITICAL, ADMINISTRATIVE))

इकाई- 1

1. प्रशासनिक परिवर्तन – संवैधानिक सुधारों के संदर्भ में (1858–1892)
2. प्रशासनिक परिवर्तन – संवैधानिक सुधारों के संदर्भ में (1909–1919)
3. प्रशासनिक परिवर्तन – संवैधानिक सुधारों के संदर्भ में (1935–1947)
4. भारतीय गणतंत्र का संविधान

इकाई- 2

5. प्रशासनिक ढांचा – स्थानीय स्वाशासन के संदर्भ में
6. प्रशासनिक ढांचा – लोकसेवा के संदर्भ में
7. प्रशासनिक ढांचा – न्याय व्यवस्था के संदर्भ में
8. प्रशासनिक ढांचा – पुलिस प्रशासन के संदर्भ में

इकाई- 3

9. पड़ोसी राज्यों से संबंध – अफगानिस्तान एवं फारस के संदर्भ में
10. पड़ोसी राज्यों से संबंध – नेपाल एवं बर्मा के संदर्भ में
11. देशी रियासतों के साथ संबंध – नीतिगत विस्तार
12. रियासतों का भारतीय संघ में विलीनीकरण

इकाई- 4

13. भारतीय राष्ट्रवाद का उदय – अवधारणाएं एवं गतिविधियां
14. 1919 तक संगठित राष्ट्रवाद की प्रवृत्तियां
15. कृषक, श्रमिक एवं क्रांतिकारी आंदोलन
16. गांधीवादी आंदोलन – विचारधारा, स्वरूप एवं कार्यक्रम

इकाई- 5

17. साम्प्रदायिकता का उदय एवं विकास – मुस्लिम लीग की स्थापना तक
18. साम्प्रदायिकता का विकास – भारत विभाजन तक
19. स्वाधीनता की प्राप्ति
20. भारत की विदेश नीति – गुटनिरपेक्षता

संदर्भ ग्रंथ :

1. एल.पी.शर्मा – आधुनिक भारत
2. रजमी पाम दत्त – इंडिया टुडे
3. प्रताप सिंह – आधुनिक भारत का इतिहास
4. एम.एस. जैन – आधुनिक भारत
5. सुमित सरकार – आधुनिक भारत का इतिहास
6. बी.एल.ग्रोवर एवं यशपाल – आधुनिक भारत का इतिहास
7. एग्नेस ठाकुर – भारत का इतिहास 1757–1857
8. वीरकेश्वर प्रसाद सिंह – भारतीय राष्ट्रीय आंदोलन एवं संवैधानिक विकास
9. एस.आर. शर्मा – मेकिंग ऑफ मॉडर्न इंडिया
10. बी.बी. मिश्र – सेंट्रल एडमिनिस्ट्रेशन ऑफ ईस्ट इंडिया कंपनी
11. शेखर बंधोपाध्याय – प्लासी से विभाजन तक
12. विपन चन्द्र – आधुनिक भारत का इतिहास
13. बी.डी. महाजन – मॉडर्न इंडियन हिस्ट्री 1707 टू प्रेजेंट डे
14. के.सी. चौधरी – हिस्ट्री ऑफ मॉडर्न इंडिया



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

15. कौलेश्वर राय – आधुनिक भारत 1757–1950

SEMESTER-IV

PAPER-II

(खंड ब आधुनिक भारत) (Section - B Modern India)

आधुनिक भारत (1858 से 1964 ई. तक) आर्थिक, सामाजिक, सांस्कृतिक
(MODERN INDIA 1858 A.D. TO 1964 A.D. (ECONOMIC, SOCIAL, CULTURAL))

इकाई- 1

1. ग्रामीण अर्थव्यवस्था – कृषि की स्थिति
2. अकाल नीति
3. शहरी अर्थव्यवस्था- औद्योगिकीकरण का विकास 1858–1947
4. वृहद पैमाने के उद्योग

इकाई- 2

5. औद्योगिक श्रम, श्रम संघों का विकास व आंदोलन
6. जनसंख्या
7. रेल्वे का विकास एवं भारतीय अर्थव्यवस्था
8. रेलपथ के सामाजिक, आर्थिक प्रभाव

इकाई- 3

9. भूमि सुधार – 1964 तक
10. नियोजित अर्थव्यवस्था-पंचवर्षीय योजनाएं
11. योजनाओं के आर्थिक परिणाम

इकाई- 4

12. आर्य समाज, प्रार्थना समाज
13. थियोसोफिकल सोसाइटी, रामकृष्ण मिशन
14. अलीगढ़ आंदोलन
15. निम्न जातीय आंदोलन, सिक्ख सुधार आंदोलन

इकाई- 5

16. ब्रिटिश शासन काल में नारी उत्थान के प्रयास
17. आधुनिक शिक्षा का विकास
18. समाचार पत्रों का विकास
19. स्वास्थ्य एवं विज्ञान – तकनीकी विकास

संदर्भ ग्रंथ :

1. बी.एल.ग्रोवर एवं यशपाल – आधुनिक भारत का इतिहास एक नवीन मूल्यांकन (1707–1969)
2. एल.पी.शर्मा – आधुनिक भारत
3. एस.आर.शर्मा – मेकिंग ऑफ मॉडर्न इंडिया
4. ए.आर.देसाई – भारतीय राष्ट्रवाद की सामाजिक पृष्ठभूमि
5. आर.सी. दत्त – इकोनामिक हिस्ट्री ऑफ इंडिया
6. विपिन चंद्र – भारतीय स्वतंत्रता संग्राम का इतिहास 1857–1947
7. विपिन चंद्र – आजादी के बाद भारत (1947–2000)
8. सुमित सरकार – आधुनिक भारत
9. एम.ए. जैन – आधुनिक भारत का इतिहास
10. प्रताप सिंह – आधुनिक भारत का सामाजिक आर्थिक इतिहास
11. प्रताप सिंह – आधुनिक भारत, 3 खंड
12. एग्नेस ठाकुर – भारत का आर्थिक इतिहास 1757–1950
13. पुरी दास ठाकुर – भारत का सामाजिक, आर्थिक एवं सांस्कृतिक इतिहास
14. अरुण भट्ट, टाचार्य – हिस्ट्री ऑफ मॉडर्न इंडिया



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

SEMESTER-IV OPTIONAL - I

भारतीय राष्ट्रीय आंदोलन का इतिहास (1922 से 1947 ई. तक)
(HISTORY OF INDIAN NATIONAL MOVEMENT (1922 TO 1947 A.D.))

इकाई- 1

1. स्वराज्य दल
2. साइमन कमीशन का विरोध एवं नेहरू रिपोर्ट
2. सविनय अवज्ञा के समय भारत की राजनीतिक स्थिति
4. सविनय अवज्ञा आंदोलन

इकाई- 2

5. गोलमेज सम्मेलन
6. पूना समझौता एवं श्वेत पत्र
7. प्रांतीय स्वायत्ता का क्रियान्वयन
8. राजनीतिक गतिरोध 1940-45

इकाई- 3

9. क्रांतिकारी आंदोलन द्वितीय चरण
10. भारतीय राजनीति में वामपंथी विचारधारा
11. कृषक एवं जनजातीय आंदोलन
12. श्रमिक आंदोलन

इकाई- 4

13. व्यक्तिगत सत्याग्रह
14. क्रिप्स मिशन
15. भारत छोड़ो आंदोलन
16. भारतीय राजनीति में गांधीजी का योगदान

इकाई- 5

17. भारत विभाजन की योजनाएं
18. कैबिनेट मिशन एवं अंतरिम सरकार
19. आजाद हिन्द फौज एवं सुभाष चंद्र बोस
20. सांप्रदायिक राजनीति का विकास एवं भारत विभाजन

संदर्भ ग्रंथ :

1. बी.एल. ग्रोवर — आधुनिक भारत का नवीन मूल्यांकन
2. कौलेश्वर राय — आधुनिक भारत
3. सुमित सरकार — आधुनिक भारत
4. बिरकेश्वर प्रसाद सिंह — भारतीय राष्ट्रीय आंदोलन एवं संवैधानिक विकास
5. पुखराज जैन — भारत का स्वतंत्रता संग्राम एवं राजनैतिक विकास
6. डी.सी. गुप्ता — भारत का राष्ट्रीय आंदोलन
7. विपन श्रीवास्तव — भारतीय स्वतंत्रता संग्राम का इतिहास
8. योगेन्द्रा चंद्रा — हिस्ट्री ऑफ फ्रीडम मूवमेंट इन इंडिया
9. यशपाल एवं ग्रोवर — आधुनिक भारत
10. रामलखन शुक्ला — आधुनिक भारत का इतिहास



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. इतिहास

SEMESTER-IV

OPTIONAL - II

भारत का सांस्कृतिक इतिहास (1526 से 1950 ई. तक)
Cultural History of India (1526 A.D. to 1950 A.D.)

इकाई- 1

1. भारतीय संस्कृति में अकबर का योगदान
2. मुगलकालीन समाज
3. मुगलकालीन स्थापत्य
4. मुगलकालीन चित्रकला

इकाई- 2

5. मुगलकालीन संगीतकला
6. मुगल कालीन साहित्य
7. दक्षिण भारतीय सांस्कृतिक जीवन
8. दक्षिण भारत की कला एवं स्थापत्यकला

इकाई- 3

9. यूरोपियों के आगमन का आर्थिक प्रभाव
10. भारतीय संस्कृति पर पाश्चात्य प्रभाव
11. भारतीय संस्कृति में ईसाई मिशनरियों का योगदान
12. यूरोपीय प्राच्यवादियों का भारतीय संस्कृति में योगदान

इकाई- 4

13. राजा राममोहन राय एवं ब्रह्म समाज
14. आर्य समाज तथा थियोसोफिकल सोसाइटी
15. रामकृष्ण मिशन एवं विवेकानंद
16. मुस्लिम समाज सुधार आंदोलन

इकाई- 5

17. ब्रिटिश भारत में नारी की स्थिति - सामाजिक कुरीतियां
18. ब्रिटिश भारत में नारी सुधार के प्रयास
19. कंपनी शासन काल में शिक्षा का विकास 1857 तक
20. ब्रिटिश शासन काल में शिक्षा का विकास 1858 से 1947

संदर्भ ग्रंथ :

1. ए.एल. श्रीवास्तव - सल्तनतकालीन भारत
2. हरिशचन्द्र वर्मा - मध्यकालीन भारत - भाग - 1 एवं 2
3. राजबली पांडे - सूफीज्म
4. पं. सुन्दर लाल शर्मा - भारत में अंग्रेजी राज
5. डाडवेल - कैम्ब्रिज हिस्ट्री ऑफ इंडिया
6. रोमिला थापर - आधुनिक भारत का इतिहास
7. बी.एन. लुणिया - मुगल साम्राज्य का उत्कर्ष
8. शिवशंकर शर्मा - भारतीय संस्कृति
9. बी.एन. लुणिया - भारतीय संस्कृति
10. पुरी, दास, चोपड़ा - भारत का सामाजिक, आर्थिक सांस्कृतिक इतिहास, खंड 2, 3।



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

SEMESTER-IV OPTIONAL - III

भारत की केन्द्रीय तथा प्रान्तीय शासन व्यवस्था CENTRAL AND STATE ADMINISTRATIVE SYSTEM OF INDIA

इकाई- 1

1. लोकपाल
2. भाषाएं एवं राजभाषा आयोग
3. राष्ट्रीय अनुसूचित जाति एवं जनजाति आयोग
4. सूचना आयोग एवं सूचना का अधिकार

इकाई- 2

5. राज्यपाल - नियुक्ति, शर्तें एवं शक्तियाँ
6. मुख्यमंत्री एवं मंत्रिपरिषद तथा उनके कार्य
7. विधान परिषद एवं विधान सभा
8. संघ राज्य क्षेत्र

इकाई- 3

9. उच्च न्यायालय
10. अधीनस्थ न्यायालय
11. महाधिवक्ता
12. राज्य लोक सेवा आयोग

इकाई- 4

13. नौकरशाही का विकास
14. पंचायती राज संस्थाएं
15. नगरीय स्वायत्त शासन व्यवस्था
16. शासन में दबाव समूह

इकाई- 5

17. राज्य के मुख्य सचिव एवं उनकी प्रशासन में भूमिका
18. राज्य में कानून व्यवस्था एवं पुलिस प्रशासन
19. संभाग एवं सभागायुक्त, उनके कार्य तथा शक्तियां
20. जिला एवं जिला दंडाधिकारी, उनके कार्य तथा शक्तियां

संदर्भ ग्रंथ :

- | | |
|------------------|--|
| (1) डी.डी. बसु | - भारत का संविधान एक परिचय |
| (2) हरिमोहन जैन | - भारतीय शासन और राजनीति |
| (3) सुशीला कौशिक | - भारतीय शासन और राजनीति |
| (4) सुभाष कश्यप | - हमारा संविधान |
| (5) R.C Agrawal | - Indian Political System |
| (6) A.G. Noorani | - Constitutional Question in India |
| (7) A. S. Narang | - Indian Government and Politics |
| (8) G. Austin | - The Indian Constitution |
| (9) M.V. Paylee | - An Introduction to the constitution of India |



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
एम.ए. इतिहास

SEMESTER-IV OPTIONAL - IV

पर्यटन सिद्धान्त एवं व्यवहार इतिहास के संदर्भ में TOURISM THEORY AND PRINCIPLES IN REFERENCE OF HISTORY

इकाई- 1

1. पर्यटन का इतिहास से संबंध
2. पर्यटन का संस्कृति से संबंध
3. पर्यटन विकास के कारक

इकाई- 2

4. पर्यटन उद्योग
5. पर्यटन विपणन
6. पर्यटन और पर्यावरण

इकाई- 3

7. पर्यटन में राष्ट्रीय उद्यानों का महत्व
8. भारत में प्रमुख राष्ट्रीय उद्यान
9. छत्तीसगढ़ प्रमुख राष्ट्रीय उद्यान

इकाई- 4

10. उत्तर भारत के प्रमुख ऐतिहासिक पर्यटन स्थल
11. दक्षिण भारत के प्रमुख ऐतिहासिक पर्यटन स्थल
12. पूर्वी भारत के प्रमुख ऐतिहासिक पर्यटन स्थल
13. पश्चिमी भारत के प्रमुख ऐतिहासिक पर्यटन स्थल

इकाई- 5

14. छत्तीसगढ़ के प्रमुख ऐतिहासिक पर्यटन स्थल
15. छत्तीसगढ़ के प्रमुख धार्मिक पर्यटन स्थल
16. छत्तीसगढ़ के प्रमुख प्राकृतिक पर्यटन स्थल
17. छत्तीसगढ़ में पर्यटन की सुविधाएं एवं समस्याएं

संदर्भ ग्रंथ :

1. जगमोहन नेगी – राष्ट्रीय संस्कृति, संपदा, सांस्कृतिक पर्यटन एवं पर्यावरण
2. रामआचार्य – टूरिज्म एंड कल्चरल हेरीटेज ऑफ इंडिया
3. ताज रावत – पर्यटन का प्रभाव एवं प्रबंधन
4. शिवाकांत बाजपेयी – सिरपुर – पुरातत्व एवं पर्यटन
5. पर्यटन विभाग – भारत शासन एवं छत्तीसगढ़ शासन द्वारा प्रकाशित

संख्या

१. १९५५-५६ का बजट
२. १९५६-५७ का बजट
३. १९५७-५८ का बजट

संख्या

४. १९५८-५९ का बजट
५. १९५९-६० का बजट
६. १९६०-६१ का बजट

संख्या

७. १९६१-६२ का बजट
८. १९६२-६३ का बजट
९. १९६३-६४ का बजट

संख्या

१०. १९६४-६५ का बजट
११. १९६५-६६ का बजट
१२. १९६६-६७ का बजट
१३. १९६७-६८ का बजट

संख्या

१४. १९६८-६९ का बजट
१५. १९६९-७० का बजट
१६. १९७०-७१ का बजट
१७. १९७१-७२ का बजट

संख्या

१८. १९७२-७३ का बजट
१९. १९७३-७४ का बजट
२०. १९७४-७५ का बजट
२१. १९७५-७६ का बजट
२२. १९७६-७७ का बजट
२३. १९७७-७८ का बजट
२४. १९७८-७९ का बजट
२५. १९७९-८० का बजट
२६. १९८०-८१ का बजट
२७. १९८१-८२ का बजट
२८. १९८२-८३ का बजट
२९. १९८३-८४ का बजट
३०. १९८४-८५ का बजट

३१. १९८५-८६ का बजट
३२. १९८६-८७ का बजट
३३. १९८७-८८ का बजट
३४. १९८८-८९ का बजट
३५. १९८९-९० का बजट
३६. १९९०-९१ का बजट
३७. १९९१-९२ का बजट
३८. १९९२-९३ का बजट
३९. १९९३-९४ का बजट
४०. १९९४-९५ का बजट



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

SCHEME OF EXAMINATION & DISTRIBUTION OF MARKS

SEMESTER - I

क्र.	प्रश्नपत्र का नाम	Internal Assessment	Term End Exam	Total Marks
1.	पाश्चात्य राजनीतिक चिंतन	20	80	100
2.	तुलनात्मक राजनीति	20	80	100
3.	लोक प्रशासन	20	80	100
4.	अंतर्राष्ट्रीय राजनीति	20	80	100

SEMESTER - II

क्र.	प्रश्नपत्र का नाम	Internal Assessment	Term End Exam	Total Marks
1.	आधुनिक भारतीय राजनीतिक चिंतन	20	80	100
2.	समकालीन राजनीतिक मुद्दे	20	80	100
3.	शोध प्रविधि	20	80	100
4.	अंतर्राष्ट्रीय संगठन	20	80	100

SEMESTER - III

क्र.	प्रश्नपत्र का नाम	Internal Assessment	Term End Exam	Total Marks
1.	भारतीय शासन व राजनीति	20	80	100
2.	भारत की विदेश नीति-सिद्धांत व व्यवहार	20	80	100
3.	अंतर्राष्ट्रीय कानून	20	80	100
4.	भारत में संघात्मक प्रणाली	20	80	100

SEMESTER - IV

प्रश्नपत्र क्रमांक	प्रश्नपत्र का नाम	Internal Assessment	Term End Exam	Total Marks
1.	भारत में राज्यों की राजनीति	20	80	100
2.	राजनय के सिद्धांत व व्यवहार	20	80	100
3.	मनव अधिकार - समस्या व संभावनाएँ	20	80	100
4.	भारत में स्थानीय स्वशासन	20	80	100



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

SEMESTER I

PAPER - I

पाश्चात्य राजनीतिक चिंतन

यह प्रश्न पत्र का राजनीतिक सिद्धांत के अर्थ एवं महत्व पर बल देते हुये यह स्पष्ट करता है कि इसका विकास कैसे हुआ है तथा आज इसकी प्रासंगिकता क्या है? यह शास्त्रीय राजनीतिक सिद्धांतों के निरंतर महत्वपूर्ण होने की व्याख्या करता है तथा हाल ही में वर्षों में विकसित हुये नये दृष्टिकोणों को भी सम्मिलित करता है जिससे शास्त्रीय सिद्धांतों की सीमाएं स्पष्ट हुई हैं। इसमें राजनीतिक सिद्धांतों की विभिन्न व्याख्याओं का परीक्षण भी किया गया है साथ ही राजनीतिक सिद्धांत के पतन की बहस तथा उसके पुनरुत्थान के कारणों का भी परीक्षण किया गया है। उसके साथ ही कुछ पाश्चात्य राजनीतिक विचारकों का अध्ययन शामिल किया गया है।

इकाई - 1 यूनानी राजनीतिक चिंतन की विशेषताएं— प्लेटो— आदर्श राज्य— न्याय, शिक्षा, साम्यवाद, दार्शनिक शासक, अरस्तू— राजनीति विज्ञान का जनक, राज्य संबंधी विचार, संविधानों का वर्गीकरण, दासता का सिद्धांत, संपत्ति व परिवार संबंधी विचार एवं क्रांति का सिद्धांत

इकाई - 2 रोमन राजनीतिक चिंतन की विशेषताएं— मध्यकालीन राजनीतिक चिंतन की विशेषताएं, मैकियावेली: पुनर्जागरण का शिशु, मानव स्वभाव संबंधी विचार धर्म व नैतिकता पृथक्करण संबंधी विचार, राज्य संबंधी विचार आधुनिक राजनीतिक चिंतन का जनक

इकाई - 3 हॉब्स: सामाजिक समझौता संबंधी विचार लॉक: सामाजिक समझौता संबंधी विचार, रूसो: सामाजिक समझौता संबंधी विचार, सामान्य इच्छा सिद्धांत मान्टेस्क्यू: शक्ति पृथक्करण सिद्धांत

इकाई - 4 बेन्थम: उपयोगितावादी सिद्धांत, जे.एस.मिल: उपयोगितावाद में संशोधन, स्वतंत्रता पर विचार, प्रतिनिध्यात्मक संबंधी विचार हीगल: द्वंदात्मक भौतिकवाद, राजनैतिक विचार, टी.एच.ग्रिन: स्वतंत्रता की अवधारणा, अधिकार, सम्प्रभुता, राज्य का आधार— शक्ति नहीं इच्छा

इकाई - 5 कार्ल मार्क्स: द्वंदात्मक भौतिकवाद, इतिहास की आर्थिक व्याख्या वर्ग-संघर्ष सिद्धांत, अतिरिक्त मूल्य का सिद्धांत, लारकी: राज्य संबंधी विचार, सम्प्रभुता विचार, बहुलवादी सिद्धांत

संदर्भ ग्रंथ -

1. राजनारायण गुप्ता पाश्चात्य राजदर्शन का इतिहास, किताब महल
2. के. एल.वर्मा, पाश्चात्य राजनीतिक विचारों का इतिहास, प्राचीन एवं मध्यकालीन, नंदकिशोर बंधु, बनारस
3. डॉ. के.एल. वर्मा, पाश्चात्य राजनीतिक विचारधाराएं (भाग 1 व 2)
4. डॉ. बी.आर. पुरोहित, बीसवीं शताब्दी के राजनीतिक चिंतन की प्रमुख धाराएं
5. डॉ. रामकुमार अवरथी, राजनीति शास्त्र के नये क्षितिज, भाग 1 व 2, म.प्र. हिन्दी ग्रंथ अकादमी, भोपाल
6. डॉ. चंद्रप्रकाश बर्थवाल तथा पाण्डेय, आधुनिक राजनीतिक विश्लेषण, उत्तरप्रदेश हिन्दी ग्रंथ अकादमी, लखनऊ
7. डॉ. हरिद्वारराय, डॉ. भोला प्रसाद सिंह, आधुनिक राजनीतिक विश्लेषण
8. Cobban, "The Decline of Political Theory", Political Science Quarterly, 1953, LXVII, PP. 321-327.
9. D. Waston, The future of the Postbehavioural Phase in Political Science, in contemporary Empirical Political Theory, K.R. Manroe (ed.) Berkeley, University of California Press. 1997.
10. J. Hampton, Political Philosophy, USA, West view press, 1997.
11. Heywood, Political Theory: An Introduction, London Macmillan, 1999.
12. Dobson Green Political Thought, London, Unwin Hymn, 1990.
13. Appadora, political thoughts the ages, Delhi, Khanna Publishers, 1992.



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

SEMESTER I

PAPER – 1

WESTERN POLITICAL THOUGHT

Course Rational:

This paper focuses on the nature and significance of political theory as it evolved and analyses its contemporary relevance. It explains the continuing significance of the study of the classics and indicates its shortcomings by underlining the need to incorporate new perspectives that have arisen in recent past. Furthermore the debate about the decline and the subsequent reasons for revive of political theory is examined in addition it provides the study of some western political thinkers.

Unit – I

Greek Political Thought: Characteristics, **Plato**: Ideal state, Theory of Justice, Theory of Education. Theory of Communism, Theory of Philosopher king. **Aristotle**: The father of political science, Theory of the state, Classification of constitution, Theory of slavery. Views on property and family, Theory of Revolution.

Unit – II

Roman Political Thought: Characteristics, Medieval political thought: characteristics **Machiavelli**: As the child of his time, Ideas of Human Nature, Separation of Politics and religion and Morality, views on state, Father of modern political thought.

Unit – III

Hobbes: social contract theory, **Locke**: Social contract theory, **Rousseau**: Social contract theory. Theory of general will. Montesque: Power distribution Theory

Unit – IV

Bentham: Theory of Utilitarianism, J.S. **Mill**: Utilitarianism, Revised edition of Benthamism on liberty, Conception of Representative Government. **Heegel**: Dialectical method, political view. **J.H. Green**: Concepts of liberty, Concepts of Rights, Sovereignty, will not force is the basic of state.

Unit – V

Karl Marks: Dialectical Materialism. Materialistic or Economic, Interpretation of History, Theory of surplus value, **Laski**: views on state on sovereignty, The Pluralistic concepts.

Reference Book:

1. Cabban, "The Decline of Political Theory", Political Science Quarterly, 1953, LXVII, PP. 321-337.



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

2. D. Waston, The future of the Postbehavioural phase in Political Science, in contemporary Empirical Political Theory, K.R. Monroe (ed). Berkeley, University of California Press. 1997.
3. J. Hampton, Political Philosophy, USA, Westview press, 1997.
4. Heywood, Political Theory: An Introduction, London-Macmillan, 1999.
5. Dobson Green Political Thought, London, Unwin Hymn, 1990.
6. Appadora, Political Thought through the Ages, Delhi, Khanna Publishers, 1992.
7. राजनारायण गुप्ता पाश्चात्य राजदर्शन का इतिहास, किताब महल
8. के. एल. वर्मा, पाश्चात्य राजनीतिक विचारों का इतिहास, प्राचीन एवं मध्यकालीन, नंदकिशोर बंधु, बनारस
9. डॉ. के.एल. वर्मा, पाश्चात्य राजनीतिक विचारधाराएं (भाग 1 व 2)
10. डॉ. बी.आर. पुरोहित, बीसवीं शताब्दी के राजनीतिक चिंतन की प्रमुख धाराएं
11. डॉ. रामकुमार अवस्थी, राजनीति शास्त्र के नये क्षितिज, भाग 1 व 2, म.प्र. हिन्दी ग्रंथ अकादमी, भोपाल
12. डॉ. चंद्रप्रकाश बर्थवाल तथा पाण्डेय, आधुनिक राजनीतिक विश्लेषण, उत्तरप्रदेश हिन्दी ग्रंथ अकादमी, लखनऊ
13. डॉ. हरिद्वारराय, डॉ. भोला प्रसाद सिंह, आधुनिक राजनीतिक विश्लेषण



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

SEMESTER I

PAPER- II

तुलनात्मक राजनीति

यह प्रश्न पत्र तुलनात्मक राजनीति के सैद्धांतिक विकास और दृष्टिकोणों का विश्लेषण करता है। यह प्रश्न पत्र व्यवस्थाओं की विशेषताओं की विशेषताओं और प्रक्रियाओं की विभिन्नताओं पर प्रकाश डालने, तुलनात्मक विश्लेषण की ठोस प्रविधियों तथा वैकल्पिक सैद्धांतिक प्रतिमानों एवं व्याख्याओं की समझ विकसित करने का प्रयत्न करता है। यह तुलनात्मक विश्लेषण करता है।

- इकाई - 1** : तुलनात्मक राजनीति - उद्भव अर्थ, प्रकृति क्षेत्र, राजनीतिक व्यवस्थाओं के अध्ययन की तुलनात्मक पद्धति, दृष्टिकोण - राजनैतिक समाज शास्त्र, राजनैतिक अर्थशास्त्र
- इकाई - 2** : राजनैतिक व्यवस्था - उपागम एवं विश्लेषण (डेविड ईस्टन), संरचनात्मक प्रकार्यात्मक उपागम व विश्लेषण (आमण्ड व पावेल), राजनीतिक संस्कृति एवं राजनीतिक समाजीकरण
- इकाई - 3** : राजनीतिक विकास - उपागम एवं विश्लेषण (लुसियन पार्ई, आमण्ड-हटिंगटन, आर्गेन्सकी), राजनीतिक संस्थाएं, राजनैतिक संचार
- इकाई - 4** : संविधानवाद - राजनैतिक सम्भ्रान्तजन, राजनीतिक दल, राजनीतिक आधुनिकीकरण।
- इकाई - 5** : दबाव समूह तथा सामाजिक आंदोलन - राजनैतिक नेतृत्व, राजनीतिक सहभागिता।

संदर्भ ग्रंथ -

1. डॉ. एस.पी. वर्मा, आधुनिक राजनीतिक सिद्धांत, विशाल पब्लिशिंग हाउस।
2. डॉ. श्यामलाल वर्मा, समकालीन राजनीतिक चिंतन एवं विश्लेषण, मेकमिलन।
3. डॉ. परमात्माशरण, तुलनात्मक शासन और राजनीति, मीनाक्षी प्रकाशन, मेरठ।
4. जे.सी. जौहरी, तुलनात्मक राजनीति, स्टर्लिंग पब्लिशर्स।
5. डॉ. श्यामलाल वर्मा, आधुनिक राजनीतिक सिद्धांत।
6. हरद्वारीलाल राय, आधुनिक राजनीतिक सिद्धांत।
7. डॉ. पी.डी. शर्मा द्वारा संकलित, आधुनिक राजनीतिक सिद्धांत।
8. एस.सुरी - तुलनात्मक राजनीति के सिद्धांत
9. सिंह एवं राय - तुलनात्मक राजनीति संस्थाएं।
10. प्रभुदत्त शर्मा - तुलनात्मक राजनीतिक संस्थाएं।
11. भोला प्रसाद सिंह - राजनीति में पद्धति सिद्धांत।
12. सी.बी.गेना - तुलनात्मक राजनीति एवं राजनीतिक संस्थाएं।
13. आर.बी.जैन - तुलनात्मक शासन एवं राजनीति।
14. बी.बी. चौधरी - तुलनात्मक शासन एवं राजनीति, महावीर प्रकाशन।
15. विपिन चंद्र - भार में उपनिवेशवाद, राष्ट्रवाद, दीपक पब्लिकेशन व डिस्ट्रीब्यूटर्स
16. G. White, R. Murray and C. White, Revolutionary Socialist Movements in the Third World, Brighton, Wheatsheaf, 1983.
17. Almond & Colman, the Politics of Development and Political Decay.
18. Vidya Bhooshan, Comparative Politics, Atlantic Publishers and Distributors, 4343/4e Daryaganj
19. R.L. Hardgrave, India: Government and Politics in a Developing Nation.
20. G.A. Almond & G.B. Powell, Jr of Comparative Politics: A development approach, Boston, Little Brown, 1966. D. Esastern - The Political System: An Enquiry into the state of political science, New York, 1953.
21. J.C. Johari, Comparative Political Theory - New Dimensions, Basic concept and major trends, New Dimensions, Basic concept and major trends, New Delhi, Sterling - 1987.



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

SEMESTER - II

PAPER - 2

COMPARATIVE POLITICS

Course Rotional:

The paper deals with the theoretical evolution and approaches to the study of comparative politics the paper intends to highlight on variations in systematic characteristics and processes to equip us with a sound grasp of methodology of comparison and to enable thus to understand alternative theoretical models and explanations. It analyzes in a comparative way a fundamental grasp over the various theories and explanations regarding political development in the third world views, which have elicited different theories of development under development and change in the study of comparative politics.

Unit - I

Evolution of comparative politics meaning, nature & scope. Comparative Method in the study of political system, Approaches: Political sociology political economics.

Unit - II

Political System Approach and Analysis (David Easton), Structural functional Approach and Analysis (Almond Powell) Political Culture and Political Socialization.

Unit - III

Political Development Approach and Analysis (Lucian Pie, Almond, Haltingan, Organsky) Political Institutions, Political Communication

Unit - IV

Constitutionalism, Political Elites, Political Parties, Modernization.

Unit - V

Pressure Group and social movement, Political leadership and political participation.

Reference Book:

1. G. White, R. Murray and C. White, Revolutionary Socialist Movements in the Third World, Brighton, Wheatsheaf, 1983.
2. Almond & Colman, the Politics of Development and Political Decay.
3. Vidya Bhooshan, Comparative Politics, Atlantic Publishers and Distributors, 4343/4e Daryaganj, Dhi.
4. R.L. Hardgrave, India: Government and Politics in a Developing Nation.
5. G.A. Almond & G.B. Powell, Jr of Comparative Politics: A development approach, Boston, Little Brown, 1966. D. Easton - The Political System: An Enquiry into the state of political science, New York, 1953.
6. J.C. Johari, Comparative Political Theory - New Dimensions, Basic concept and major trends, New Dimensions, Basic concept and major trends, New Delhi, Sterling - 1987.
7. डॉ. एस.पी. वर्मा, आधुनिक राजनीतिक सिद्धांत, विशाल पब्लिशिंग हाउस।



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

8. डॉ. श्यामलाल वर्मा, समकालीन राजनीतिक चिंतन एवं विश्लेषण, मेकमिलन।
9. डॉ. परमात्माशरण, तुलनात्मक शासन और राजनीति, मीनाक्षी प्रकाशन, मेरठ।
10. जे.सी. जौहरी, तुलनात्मक राजनीति, स्टर्लिंग पब्लिशर्स।
11. डॉ. श्यामलाल वर्मा, आधुनिक राजनीतिक सिद्धांत।
12. हरद्वारीलाल राय, आधुनिक राजनीतिक सिद्धांत।
13. डॉ. पी.डी. शर्मा द्वारा संकलित, आधुनिक राजनीतिक सिद्धांत।
14. एस.सुरी - तुलनात्मक राजनीति के सिद्धांत
15. सिंह एवं राय - तुलनात्मक राजनीति संस्थाएं।
16. प्रभुदत्त शर्मा - तुलनात्मक राजनीतिक संस्थाएं।
17. भोला प्रसाद सिंह - राजनीति में पद्धति सिद्धांत।
18. सी.बी.गेना - तुलनात्मक राजनीति एवं राजनीतिक संस्थाएं।
19. आर.बी.जैन - तुलनात्मक शासन एवं राजनीति।
20. बी.बी. चौधरी - तुलनात्मक शासन एवं राजनीति, महावीर प्रकाशन।
21. विपिन चंद्र - भार में उपनिवेशवाद, राष्ट्रवाद, दीपक पब्लिकेशन व डिस्ट्रीब्यूटर्स



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

SEMESTER I

PAPER-3

लोक प्रशासन

पाठ्यक्रम औचित्य -

यह प्रश्न पत्र लोक प्रशासन को व्यापक व्यवस्थित पर्यावरण में समझने का प्रयास है जिससे इसके उपकरणों एवं कर्ताओं के मुख्य अंतः क्रियात्मक कारकों की पहचान की जा सके। तथा उन उपायों की समझ विकसित की जा सके जो उनकी क्रियात्मक दक्षता को प्रभावित करते हैं। एवं कार्यात्मक उपयोगिता को शक्ति प्रदान करते हैं। इसमें नौकरशाही के विकास तथा विकास की प्रक्रिया में इसके उल्लेखनीय योगदान को समझने का प्रयास किया गया है। साथ ही विकासात्मक नौकरशाही के अध्ययन को भी ध्यान में रखा गया है।

- इकाई - 1** लोक प्रशासन - परिभाषा, अर्थ, प्रकृति, क्षेत्र अध्ययन के उपागम, निजी प्रशासन व लोक प्रशासन में समानता एवं अंतर, नवीन लोक प्रशासन की अवधारणा
- इकाई - 2** संगठन के सिद्धांत - पदसोपान, नियंत्रण का क्षेत्र, आदेश की एकता, समन्वय, प्रत्यायोजन, केन्द्रीयकरण विकेन्द्रीयकरण।
- इकाई - 3** मुख्य कार्यपालिका- सूत्र एवं स्टाफ अभिकरण, नेतृत्व, निर्णय, निर्माण, जवाबदेही, शासन पर नियंत्रण- संसदीय व न्यायिक
- इकाई - 4** कार्मिक प्रशासन- भर्ती, प्रशिक्षण, पदोन्नति, नौकरशाही- अर्थ, परिभाषा, विशेषताएं गुण-दोष, प्रकार, नौकरशाही का आधुनिकीकरण लोक सेवा आयोग,
- इकाई - 5** वित्तीय प्रशासन- बजट सिद्धांत, निर्माण, प्रक्रिया, नियंत्रक एवं महालेखा परीक्षक, लेखांकन अंकेक्षण लोक सेवा में तटस्थता, प्रदत्त विधायन, सूचना का अधिकार

संदर्भ ग्रंथ -

1. सी.पी. भाम्भरी- लोक प्रशासन के सिद्धांत
2. अवरुथी एवं माहेश्वरी- लोक प्रशासन के सिद्धांत
3. इन्द्रजीत कौर- लोक प्रशासन
4. डॉ. डी.एस. यादव- लोक प्रशासन
5. खान एवं वर्मा- प्रशासनिक विचारधाराएं, भाग 1, 2
6. आर. बसु- लोक प्रशासन, नई दिल्ली, जवाहर पब्लिशर्स
7. निशा वशिष्ठ- भारत में नौकरशाही की कार्यप्रणाली
8. डॉ. बी.एल. फड़िया- लोक प्रशासन
9. Pfittner J.M.- Public Administration
10. White L.D.- Introduction to the Principles
11. Bhambhari C.P.- Bureaucracy and Politics in India, Delhi Vikas 1971.
12. Bhattacharya M. - Public Administration
13. Maheshswari S.r. - Indian Administration System
14. Awasthi & Maheshwari - Public Administration.



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

SEMESTER I

PAPER – 3

PUBLIC ADMINISTRATION

This paper intends to study public Administration in its larger systematic milieu to identify key interacting factors in its apparatus and actors, and to develop understanding of measures that affect its operating efficiency and strengthen its significant contributions to the process of development, highlight any and the importance and imperatives of the study of developmental bureaucracy.

Unit-1

Public Administration: Definition, meaning and mutual scope, study approaches, Differences and similarities with private Administration concepts of New Public Administration.

Unit-2

Theories of Organization: Hierachy, Span of Control Unity of Command, Coordination Delegation of Power, Centralization and decentralization.

Unit-3

Chief Executive: Line and Staff Agencies, Leadership Decision making, Accountability Control over Administration - Legislative and Judicial.

Unit-4

Personal Manangement: Recruitment Training, PromotionBureaucracy: Meaning definition, characteristics, Merits-Demerits, Types. Modernisation of Bureaucracy, Public service Commission

Unit-5

Financial Administration: Theories and process of Budget making, Controller and Auditor General of India, Accounting and Auditing, Neutrality in public service, Delegated legislation, Right to Information.

Reference Book:

1. Pfittner J.M.– Public Administration
2. White L.D.- Introduction to the Principles
3. Bhambhari C.P.– Bureaucracy and Politics in India, Delhi Vikas 1971.
4. Bhattacharya M.– Public Administration
5. Maheshwari S.r. – Indian Administration System
6. Awasthi & Maheshwari – Public Administration.
7. सी.पी. भाम्भरी– लोक प्रशासन के सिद्धांत
8. अवस्थी एवं माहेश्वरी– लोक प्रशासन के सिद्धांत
9. इन्द्रजीत कौर– लोक प्रशासन
10. डॉ. डी.एस. यादव– लोक प्रशासन
11. खान एवं वर्मा– प्रशासनिक विचारधाराएं, भाग 1, 2
12. आर. बसु– लोक प्रशासन, नई दिल्ली, जवाहर पब्लिशर्स
13. निशा वशिष्ठ– भारत में नौकरशाही की कार्यप्रणाली
14. डॉ. बी.एल. फडिया– लोक प्रशासन



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

SEMESTER I

PAPER - 4

अंतर्राष्ट्रीय राजनीति

यह प्रश्न पत्र अंतर्राष्ट्रीय राजनीति के अध्ययन के विभिन्न दृष्टिकोणों एवं पद्धतियों को स्पष्ट करता है। साथ ही समकालीन महत्वपूर्ण मुद्दों के विश्लेषण पर भी बल देता है। इस प्रश्न पत्र का एक महत्वपूर्ण पक्ष शक्ति तथा समकालीन अंतर्राष्ट्रीय राजनीति में उसके उपयोग का सैद्धांतिक आधारों पर विश्लेषण करना भी है। गुट निरपेक्षता की अवधारणा शस्त्र नियंत्रण तथा निःशस्त्रीकरण, दक्षिण तथा दक्षिण पूर्ण एशिया के संगठनों एवं दक्षिण एवं पश्चिम में संघर्ष एवं सहयोग के मुख्य क्षेत्रों के विशद विवेचन एवं विश्लेषण का प्रयास इस प्रश्न पत्र में किया गया है। उत्तर शीतयुद्ध में उभरे सामाजिक, आर्थिक एवं मानवीय प्रश्नों को भी इसमें सम्मिलित किया गया है।

- इकाई - 1** अंतर्राष्ट्रीय राजनीति - विकास, प्रकृति : क्षेत्र, अंतर्राष्ट्रीय राजनीति के अध्ययन के सिद्धांत यथार्थवादी, मार्क्सवादी, खेल और व्यवस्था सिद्धांत
- इकाई - 2** शक्ति के अवधारणा - इसके तत्त्व व सीमाएं शक्ति प्रबंधन, शक्ति सन्तुलन, सामूहिक सुरक्षा शक्ति की बदलती प्रकृति।
- इकाई - 3** असंलग्नता की अवधारणा- अर्थ, परिभाषा, विशेषताएं, उपलब्धियां, असफलता एवं प्रासंगिकता, निःशस्त्रीकरण अर्थ, आवश्यकता पक्ष-विपक्ष, मार्ग में आने वाली बाधाएं
- इकाई - 4** राजनय- परिभाषा, प्रकार, कार्य, राजनयिक विशेषाधिकार, क्षेत्रीय संगठन - सार्क और आसियान, यूरोपियन-यूनियन (ईयू)
- इकाई - 5** आतंकवाद - परिभाषा, प्रोत्साहन देने वाले तत्त्व, दक्षिण एशिया में आतंकवाद, सीमा पार आतंकवाद, परमाणु आतंकवाद, वैश्विक आतंकवाद

संदर्भ ग्रंथ -

1. बी.एल.फड़िया - अंतर्राष्ट्रीय राजनीति
2. ई.एच.कार - दो विश्व युद्ध के बीच अंतर्राष्ट्रीय संबंध, लक्ष्मी नारायण अग्रवाल, आगरा
3. मथुरालाल शर्मा - अंतर्राष्ट्रीय संबंध - 1917-1945, कालेज बुक डिपो
4. मथुरालाल शर्मा - अंतर्राष्ट्रीय संबंध - 1945 से अब तक, कालेज बुक डिपो, जयपुर
5. प्रभुदत्त शर्मा - अंतर्राष्ट्रीय राजनीति, कॉलेज बुक डिपो जयपुर
6. एच.जे. मार्गन्थाउ - राष्ट्रों के मध्य राजनीति
7. पुष्पेश पंत एवं जैन - अंतर्राष्ट्रीय संबंध, मीनाक्षी प्रकाशन, मेरठ
8. बी.के.खन्ना एवं लीपास्थी अरोरा - भारतीय विदेश नीति के नये आयाम, डी.के. प्रकाशन, नई दिल्ली
9. S.Burchill Et al - theories of International Relations, Hampshire, Macmillan, 2001.
10. K.W. Deutsch, the analysis of International Relations, New Delhi, Prentics Hall 1989.
11. H.J. Morgenthau, Politics among nations, Sixth Edition, revised by K.W. Thompson, Newyork, Alfred Knoof, 1985.
12. K.P. Mishra and R.S. Beal, International Relations Theory, New Delhi, Vikas, 1980.



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

SEMESTER I

PAPER – 4

INTERNATIONAL POLITICS

This paper deals with the different approaches and methods of studying international political along with an emphasis on some important contemporary issues. One very important component of this paper is the theoretical postulates about power and the actual operation of it in contemporary international politics. The concept of non alignment, arms control and disarmaments the regional organization of South-East Asia and the major Areas of conflict and cooperation in South and West need also to be dealt in detail and analytically. It incorporates social, economic and humanitarian issues that have come to the fore front in the post cold war period.

Unit – 1

Development of International Politics: and Scope. Theories of International Politics— Realistic Marxist, Game and System Theory.

Unit- 2

Concepts of Power: Its constituents and limitations, The management of power— Balance of power, Collective security and changing nature of National power.

Unit-3

The concepts of Non Alignment, meaning, definition, features, achievements Bases, role and Relevance. Disarmament meaning, needs, against Hindrances failures.

Unit-4

Diplomacy— Definition, kinds-Functions Diplomatic Emunities. Regional organization— SAARC, ASEAN, EU.

Unit-5

Terrorism— Definition, Motivative elements, Terrorism in South Aisa, Sima paar Terrorism, Terrorism— Nuclear Terrorism Global Terrorism

Reference Book:

1. बी.एल.फड़िया – अंतर्राष्ट्रीय राजनीति
2. S.Burchill Et al – theories of International Relations, Hampshire, Macmillion, 2001.
3. K.W. Deutsch, the analysis of International Ralations, New Delhi, Prentics Hall 1989.
4. H.J. Morgenthau, Politics among nations, Sixth Edition, revised by K.W. Thompson, Newyork, Alfred Knoof, 1985.
5. K.P. Mishra and R.S. Beal, International Relations Theory, New Delhi, Vikas, 1980.
6. ई.एच.कार – दो विश्व युद्ध के बीच अंतर्राष्ट्रीय संबंध, लक्ष्मी नारायण अग्रवाल, आगरा
7. मथुरालाल शर्मा – अंतर्राष्ट्रीय संबंध – 1917–1945, कालेज बुक डिपो
8. मथुरालाल शर्मा – अंतर्राष्ट्रीय संबंध – 1945 से अब तक, कालेज बुक डिपो, जयपुर
9. प्रभुदत्त शर्मा – अंतर्राष्ट्रीय राजनीति, कॉलेज बुक डिपो जयपुर
10. एच.जे. मार्गेन्थाउ – राष्ट्रों के मध्य राजनीति
11. पुष्पेश पंत एवं जैन – अंतर्राष्ट्रीय संबंध, मीनाक्षी प्रकाशन, मेरठ
12. बी.के.खन्ना एवं लीपारथी अरोरा – भारतीय विदेश नीति के नये आयाम, डी.के. प्रकाशन, नई दिल्ली



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

SEMESTER II

PAPER – 1

आधुनिक भारतीय राजनीतिक चिंतन

यह प्रश्न पत्र का उद्देश्य आधुनिक भारत में राजनीतिक सिद्धांतों की परंपराओं के विशिष्ट लक्षणों के प्रति समालोचनात्मक जागरूकता विकसित करना है। इस प्रश्न पत्र का केन्द्रीय विषय भारत के सामाजिक एवं राजनीतिक विचारों के दार्शनिक आधारों का विवेचना करना तथा वे किस सीमा तक पश्चिमी राजनीतिक चिंतन से भिन्न है यह स्पष्ट करना है। यह आधुनिक भारत के विभिन्न राजनीतिक एवं सामाजिक नेताओं तथा चिंतकों के विचारों को व्यवस्थित रूप से समझने का प्रयास है। यह आधुनिक भारतीय राजनीतिक विचारकों के राजनीतिक सिद्धांतीकरण के क्षेत्र में किये गये उल्लेखनीय योगदान पर बल देता है तथा उनके राजनीतिक चिंतन की सापेक्षिक स्वतंत्रता को निरूपित करता है।

- इकाई – 1** भारतीय राजनीतिक चिंतन— उत्पत्ति एवं विकास, भारतीय पुनर्जागरण – राजा राम मोहन राय, दयानंद सरस्वती, विवेकानंद
- इकाई – 2** महात्मा गांधी – सत्य, अहिंसा, सत्याग्रह, आदर्श राज्य का विचार, सविनय अवज्ञा, गांधी समाज सुधारक के रूप में, गांधी एक राजनैतिक विचारक।
- इकाई – 3** पं. जवाहर लाल नेहरू— राजनीतिक विचार डॉ. भीमराव अम्बेडकर— राजनीतिक विचार
- इकाई – 4** राम मनोहर लोहिया— राजनीतिक सामाजिक विचार, जय प्रकाश नारायण के राजनीतिक, सामाजिक विचार, आचार्य नरेन्द्र देव के राजनीतिक सामाजिक विचार
- इकाई – 5** दीन दयाल उपाध्याय— राजनीतिक विचार मानवेन्द्र नाथ राय— राजनीतिक विचार अरविंद घोष – राष्ट्रीयता व राजनीतिक विचार

संदर्भ ग्रंथ –

1. आधुनिक भारतीय सामाजिक एवं राजनीतिक चिंतन – डॉ. बी.एल. फड़िया, साहित्य भवन, आगरा
2. भारतीय राजनीतिक विचारक – रश्मि पाठक, अर्जुन पब्लिशिंग हाऊस, नई दिल्ली
3. आधुनिक भारतीय राजनीतिक चिंतन – वी.पी. वर्मा
4. भारतीय राजनीतिक चिंतन – डॉ. गोविंद प्रसाद शर्मा, म.प्र. हिन्दी ग्रंथ अकादमी, भोपाल
5. R. Kothari, Politics in India, New Delhi orient Longman, 1970.
6. डॉ. ओम प्रकाश गाबा – भारतीय राजनीतिक विचारक



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

SEMESTER II

PAPER – 1

MODERN INDIAN POLITICAL THOUGHT

The purpose of this paper is to generate a critical awareness about the distinctive features of the political theory traditional in Modern India. The focal theme of the paper is the bearing of India Philosophical system of thought on social and political ideas and to what extent is Indian political thought a rejection derivativemitation or innovation transformation of Wester political Thought. It is an attempt to discuss systematically the political ideas of various political and social leaders and thinker in modern India. It emphasize on the distinctive contribution of modern India thinkers to political theorizing and the relative autonomy.

Unite-1

Evolution of Indian political thought, Indian Renaissance- Raja Ram Mohan Roy, Dayanand Saraswati and Vivekanand

Unite-2

Mahatma Gandhi– Truth, Non-violence, satyagrah, View at Ideal state, Gandhi as a social reformer, Gandhi as a political thinker.

Unite -3

Pt. Jawaharlal Nehru: Political Ideas, Dr. B.R. Ambedkar: Political Ideas

Unite -4

Ram Manohar Lohia: Political and Social Ideas, Jay Prakash Narayan: Social and Political Ideas, Acharya Narendra Dev: Social and political Ideas.

Unite -5

Deen Dayal Upadhyay: Political Ideas, Manvendra Nath Roy: Political Ideas, Aurbindo: Nationalism and Political Ideas.

संदर्भ ग्रंथ –

1. आधुनिक भारतीय सामाजिक एवं राजनीतिक चिंतन– डॉ. बी.एल. फड़िया, साहित्य भवन, आगरा
2. भारतीय राजनीतिक विचारक– रश्मि पाठक, अर्जुन पब्लिशिंग हाऊस, नई दिल्ली
3. आधुनिक भारतीय राजनीतिक चिंहन– वी.पी. वर्मा
4. भारतीय राजनीतिक चिंतन– डॉ. गोविंद प्रसाद शर्मा, म.प्र. हिन्दी ग्रंथ अकादमी, भोपाल
5. R. Kothari, Politics in India, New Delhi orient Longman, 1970.
6. डॉ. ओम प्रकाश गाबा – भारतीय राजनीतिक विचारक



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

SEMESTER II

PAPER - 2

समकालीन राजनीतिक मुद्दे

शीत युद्ध के पश्चात् अधिकांश स्थापित लोकतांत्रिक देशों में सामाजिक, आर्थिक, सांस्कृतिक तथा मानवीय सुरक्षा की चिंताएं उभर कर सामने आयी हैं। ये चिंताएं अपेक्षाकृत विकसित तृतीय विश्व के देशों में भी मौजूद हैं इसलिये यह परीक्षण करना आवश्यक है कि किस सीमा तक ये समस्याएं नई हैं। अथवा उन्हीं पुरानी समस्याओं को नया रूप दिया जा रहा है। इस प्रश्न पत्र का उद्देश्य इन चिंताओं को विश्व राजनीति के संदर्भ में तथा वैश्विक एवं विभिन्न देशों के नीति निर्माण के संदर्भ में समालोचनात्मक दृष्टि से विश्लेषित करना है।

- इकाई - 1** शीत युद्ध की पृष्ठभूमि - शीत युद्ध का अंत, शीत युद्ध को प्रभावित करने वाले कारक, देतां (तनाव शैथिल्य) उत्तर शीत युद्ध काल की समकालीन समस्याएं एक विश्व व्यवस्था साम्यवादी गुट का अवसान
- इकाई - 2** नई अंतर्राष्ट्रीय अर्थव्यवस्थाएं-विशेषताएं, उत्तर-दक्षिण संवाद की मुख्य समस्याएं - अभिप्राय पृष्ठभूमि विभिन्न सम्मेलन (ब्रांट, पृथ्वी), उत्तर-दक्षिण संवाद के लिए दबाव आलोचनात्मक मूल्यांकन दक्षिण-दक्षिण सहयोग, सीमाएं व चुनौतियां
- इकाई - 3** वैश्वीकरण - अर्थ, विशेषताएं, लाभ-हानि, पर्यावरणीय मुद्दे-संयुक्त राज्य पर्यावरणीय कार्यक्रम, पर्यावरणीय संरक्षण के लिए अंतर्राष्ट्रीय कानून रियो सम्मेलन 1992, पृथ्वी सम्मेलन 2002
- इकाई - 4** परमाणु निःशस्त्रीकरण एवं शस्त्र नियंत्रण (सीटीबीटी, बीटीएनपीटी), निःशस्त्रीकरण और संयुक्त राष्ट्र: भूमिका और प्रयास Efforts - 1947 to 1980, 1981 to update
- इकाई - 5** तृतीय विश्व की समस्याएं- अवधारणा, विशेषतायें, भूमिका, महाशक्ति अमरीका व तृतीय विश्व, विकासात्मक मुद्दे- आर्थिक, सामाजिक विकास, कृषि स्वास्थ्य, गरीबी खाद्य समस्या।

संदर्भ ग्रंथ -

1. डॉ. बी.एल. फाड़िया - समकालीन मुद्दे, साहित्य भवन पब्लिकेशन्स, आगरा।
2. W. Lacquer, Terrorism, London, Weidenfeld and Nicholson, 1977
3. P. Ekins, A New World Order : Grassroots Movements for Global Change, London, Routledge, 1992.



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

SEMESTER II

PAPER – 2

CONTEMPORARY POLITICAL ISSUES

Science economic, culture and humanitarian concerns have come to the fore front relegation issue of security to the boardound in the most well established democracies in the post cold war period .These concerns also find their advocates in the relatively under developed counters of the third world . There is a need examine to what extent are thes concerns new or are they a redefinition of old ideas with a fresh look. The objective of the paper is to examine critically these and analyze their impact on the world politics and policy making initiatives both globally and within individual countries.

Unit –1

Background of the Cold war: End of the Cold war Causes of the Cold War, Detante Contemporary Problem of Post Gold War Era. Uni polar World System, End of communist Group

Unit –2

New International Economic order, Issue of North South Dialogues– Meaning, Background, Various conference (Brant, Prithivi) Pressure on North South Dialogue limitation and challanges, South-south dialogue (cooperation).

Unit –3

Globalization: Meaning, characacterstics, Merit, Demerit, Environmental Issues– United Nation Environment Programme, International Law of Environment Protection Rio Conference 1992, Prithvi Conference 2002

Unit –4

Nuclear Disarmament and Arms control CTBT, NPT, Disarmament and United Nations - Role and efforts since 1947 to 1980, 1981 to update

Unit- 5

Problem of Third World: Concept Characteristics, Role, Super Power America and Third World. Developing Issues- Economic, Social Development Agriculture, Health, Poverty, Food Problem

Reference Book:

1. डॉ. बी.एल. फाड़िया – समकालीन मुद्दे, साहित्य भवन पब्लिकेशन्स, आगरा।
2. W. Lacquer, Terrorism, London, Weidenfeld and Nicholson, 1977
3. P. Ekins, A New World Order: Grassroots Movements for Global Change, London, Routledge, 1992.



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

SEMESTER II

PAPER - 3

शोध प्रविधि

यह प्रश्न पत्र राजनीति विज्ञान में वैज्ञानिक ज्ञान प्राप्त करने के लिये इन्द्रियानुभाविक अनुसंधान की प्रक्रिया एवं पद्धतियों को रेखांकित करता है। सामाजिक विज्ञान अनुसंधान पद्धतियों को राजनीति विज्ञान से संबंध करने का यह प्रयास है। उससे विभिन्न पद्धतियों एवं विचारों को आलोचना को भी सम्मिलित किया गया है।

- इकाई - 1** शोध का स्वरूप एवं क्षेत्र महत्व और उपयोगिता विशुद्ध शोध एवं व्यावहारिक शोध में अंतर शोध समस्या की पहचान, शोध प्रारूप (रचना)
- इकाई - 2** वैज्ञानिक शोध प्रविधि- प्राकल्पना, सम्प्रत्यय, एवं चर, उपकल्पना निर्माण एवं परीक्षण प्रतिचयन (निर्देशन पद्धति)
- इकाई - 3** तथ्य संकलन की तकनीक एवं उपकरण: अवलोकन, विशेषताएं प्रकार, गुण एवं दोष प्रश्नावली: अनुसूची: एवं साक्षात्कार: प्रतिचयन एवं सर्वेक्षण की तकनीक
- इकाई - 4** अध्ययन की प्रकृति: व्यक्तिगत अध्ययन पद्धति भूमिका एवं सहत्व, पूर्वगामी अध्ययन एवं पेनल अध्ययन, सामग्री संसाधन एवं विश्लेषण, संकेतीकरण, सारणीयन, विश्लेषण एवं सामाजिक विज्ञान में कम्प्यूटर का प्रयोग
- इकाई - 5** सांख्यिकीय विश्लेषण: समान्तर माध्य, मध्यांक, बहुलक, प्रतिवेदन लेखन- उद्देश्य, स्वरूप अंतर वस्तु-संदर्भ

संदर्भ ग्रंथ -

1. श्यामलाल वर्मा - राजनीति विज्ञान में अनुसंधान प्रविधि
2. त्रिवेदी आर.ए. एवं शुक्ला डी.पी. - रिसर्च मेथडोलॉजी कॉलेज बुक डिपो रायपुर
3. रविन्द्रनाथ मुखर्जी - शोध एवं सांख्यिकी
4. सी.पी. शर्मा - शोध प्रविधियां
5. डॉ. बी. एल. फड़िया - शोध प्रविधियां
6. डॉ. एस.डी. सिंह - सामाजिक शोध सर्वेक्षण एवं सांख्यिकी
7. J.B. Johnson, and R.A. Josiy, Political Science Research Methods, Washington D.C.C.Q. Press, 1986.
8. M. Waber, the Methodology of Social Science, Translated edited by E.A. Shils and H.A. Finch. Newyork, the Free Press, 1949.
9. Dr. A.P. Verma - Research Methodology in Public Administration Non profit organization.



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

SEMESTER II

PAPER – 3

RESEARCH METHODOLOGY

This paper is a basic instruction to the process and method of empirical research for achieving scientific knowledge in political science. An attempt is made to relate social science Research methods to other course in syllabus of political Science. The criticisms of different methods and schools are included. There is a need to teach the method of data collection. Sample survey preparation of bibliography and questionnaire, writing of report dissertation and thesis.

Unit-1

Social research: Nature, Importance and Use, Difference between pure and applied research Identification of research Problem research Design.

Unit-2

Scientific Research Method: Hypothesis concepts and variables, Hypothesis formulation and testing, sampling method.

Unit-3

Tools and techniques of Data Collection: Observation, Characteristics of observations, kinds of observation, Merit and demerits of Questionnaire, Schedule, interview, Sampling and survey Techniques.

Unit-4

Nature of Study: Case Study: Technique Role and Importance Case study. Pilot studies and panel studies, Application of computer in social Science research. Encoding, Schedule, data Resources and Analysis.

Unit-5

Statistics Analysis– Mean, Median, Mode, Report Writing: Purpose forms and contents, reference.

Reference Book:

1. J.B. Johnson, and R.A. Josiym, Political Science Research Methods, Washington D.C.C.Q. Press, 1986.
2. M. Waber, the Methodology of Social Science, Translated edited by E.A. Shils and H.A. Finch. Newyork, the Free Press, 1949.
3. Dr. A.P. Verma – Research Methodology in Public Administration Non profit organization.
4. त्रिवेदी आर.ए. एवं शुक्ला डी.पी. – रिसर्च मेथडोलॉजी कॉलेज बुक डिपो रायपुर
5. रविन्द्रनाथ मुखर्जी – शोध एवं सांख्यिकी
6. सी.पी. शर्मा – शोध प्रविधियां
7. डॉ. बी. एल. फड़िया – शोध प्रविधियां
8. डॉ. एस.डी. सिंह – सामाजिक शोध सर्वेक्षण एवं सांख्यिकी



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

SEMESTER-II

PAPER - 4

अंतर्राष्ट्रीय संगठन

यह प्रश्न पत्र अंतर्राष्ट्रीय संगठनों के उद्भव एवं विकास का आरंभ से लेकर वर्तमान समय तक का अध्ययन करना है। यह उन समस्याओं पर प्रकाश डालता है। जो अंतर्राष्ट्रीय संगठनों के सम्मुख आती हैं और उनके कार्य में रुकावट डालती हैं। संयुक्त राष्ट्र की संरचना एवं कार्य विधि का गहराई से अध्ययन किया जाना है कि क्या यह अपने शिल्पियों की अपेक्षा आशा एवं आकांक्षा के अनुरूप खरा उतरा है। साथ ही शीत युद्ध की समाप्ति के पश्चात् राजनीतिक एवं सुरक्षा बिंदुओं से सामाजिक आर्थिक एवं मानवतावादी विषयों में परिवर्तन और इन आवश्यकताओं को सुगम बनाने में संयुक्त राष्ट्रीय की भूमिका विश्लेषित किया जाना है।

- इकाई - 1** अंतर्राष्ट्रीय संगठन— प्रकृति एवं विकास, अंतर्राष्ट्रीय संगठन राष्ट्र राज्य का वर्ण संकर, राष्ट्र संघ— रचना एवं कार्य, विश्व शांति की रक्षा में भूमिका, राष्ट्र संघ की असफलता के कारण
- इकाई - 2** संयुक्त राष्ट्र— संरचना उद्देश्य एवं कार्यसंयुक्त राष्ट्र के विभिन्न अंग, संयुक्त राष्ट्र की संरचना में सुधारों की आवश्यकता, भारत और संयुक्त राष्ट्र
- इकाई - 3** अंतर्राष्ट्रीय विवादों का शांतिपूर्ण एवं बाध्यकारी समाधान— दबावपूर्ण कार्यवाही, आर्थिक सामाजिक विकास और संयुक्त राष्ट्र की भूमिका
- इकाई - 4** शीत युद्धोत्तर काल में संयुक्त राष्ट्र— सामाजिक, आर्थिक एवं मानवीय भूमिका शांति संस्थापक के रूप में संयुक्त राष्ट्र
- इकाई - 5** ब्रेटेन वुडस वित्तीय संस्थाएं— विश्व व्यापार संगठन, अंतर्राष्ट्रीय मुद्रा कोष, विश्व बैंक, नई विश्व आर्थिक व्यवस्था, संयुक्त राष्ट्र संघ की भूमिका का मूल्यांकन

संदर्भ ग्रंथ -

1. बैकुण्ठाथ सिंह - अंतर्राष्ट्रीय संगठन ज्ञानदा प्रकाशन
2. एम.पी.राय - अंतर्राष्ट्रीय संगठन कॉलेज बुक डिपो, जयपुर
3. K.P. Saxena, Reforming the United Nations, The Challenging Reverence, New Delhi, SAGE, 1993.
4. Archer, International Organization, Newyork, Sent martin Press, 1975.



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

SEMESTER II

PAPER – 4

INTERNATIONAL ORGANISATION

This paper studies the evaluation and the development of international organizations from its inception till present times it focuses on the problems that confronts international organizations and constraints with which they function. An in depth study of the structure and functioning of the United Nations needs to be undertaken and analyzed from the perspective of whether it has lived upto the expectations hope and aspirations of its architects in addition the shift from political and security considerations to social, economic and humanitarian concern following the end of the cold war and UN's role in facilitating these needs to be analyzed.

Unit-1

International Organisation: Nature and Evolution International Organisation– A Hybrid of Nation State System and The International system, The League of Nation–structure and functions, Role in protecting World peace, causes of failure of league Nations.

Unit-2

The United Nations: aims, structure and functions, various organs of U.N., Need of Reform in the U.N. Structure, India and United Nations.

Unit-3

Peaceful settlement and forceful settlement of International Disputes and Enforcement Action, Role of United Nations in Economic and social development.

Unit-4

United Nations in post cold war Era, Socio, Economic and Humanitarian Role, United Nations as a peace keeper and politics within United Nations

Unit-5

The evolution of International financial Institutions: Bretton woods system, World Trade Organisation, International Monetary fund, World Bank, New World economic order, Assessment of United Nations role.

Reference Book:

1. K.P. Saxena, Reforming the United Nations, The Challenging Reverence, New Delhi, SAGE, 1993.
2. Archer, International Organization, New York, Sent martin Press, 1975.
3. बैकुण्ठाथ सिंह – अंतर्राष्ट्रीय संगठन ज्ञानदा प्रकाशन
4. एम.पी.राय – अंतर्राष्ट्रीय संगठन कॉलेज बुक डिपो, जयपुर



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

सेमेस्टर III

पेपर-I भारतीय शासन एवं राजनीति

SEMESTER III

PAPER I

INDIAN GOVERNMENT AND POLITICS

इकाई-1 संविधान सभा की पृष्ठभूमि – संगठन एवं कार्य प्रणाली, भारतीय संविधान की विशेषताएं।

वैचारिक आधार – प्रस्तावना, स्रोत, संविधान संशोधन प्रक्रिया।

Background of the Constituent Assembly - Composition and Working] Main Features of the Indian Constitution. Ideological contents - Preamble Sources of the Indian Constitution, Process of Constitutional amendment.

इकाई-2 मौलिक अधिकार एवं कर्तव्य, राज्य के नीति निर्देशक सिद्धान्त, केन्द्र राज्य सम्बन्ध-विधायी, वित्तीय, प्रशासकीय।

Fundamental Rights and duties, Directive Principles of State Policy; Centre State Relation - Legislative, Financial, Administrative.

इकाई-3 संघीय कार्यपालिका – राष्ट्रपति, प्रधानमंत्री, मन्त्रिपरिषद।

Union Executive - President Prime minister and Council of Ministers.

इकाई-4 संघीय व्यवस्थापिका – लोकसभा, राज्यसभा, भारतीय सर्वोच्च न्यायालय।

Union Legislature - House of people (Loksabha), House of State (Rajyasabha), Supreme Court of India.

इकाई-5 भारतीय राजनीति के समक्ष चुनौतियां – जातिवाद, क्षेत्रवाद, भाषावाद, सम्प्रदायवाद, भ्रष्टाचार।

Challenges before Indian Politics - Casteism, Regionalism, linguism, Communalism, Corruption.

सन्दर्भ ग्रन्थ:-

डॉ. पुखराज जैन एवं डॉ. बी.एल. फड़िया – भारतीय शासन एवं राजनीति

सुभाष कश्यप – भारतीय राजनीति के नये मोड़,

एमपी. राय-भारतीय शासन व राजनीति,

रजनी कोणरी – भारत में राजनीति,

हरिश् चन्द्र शर्मा – भारत में राज्यों की राजनीति

Dr. M.P. and Dr. D. Ray - Indian political system,

R. Kothari - Politics in India,

Iqbal Narayan - State politics in India,

L.N. Sharma - The Indian prime minister; office and power.

G Gopal Kumar - Regional political Parties and state politics.



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

सेमेस्टर III

पेपर - II

भारत की विदेश नीति : सिद्धान्त एव व्यवहार

SEMESTER III

PAPER II

INDIAN FOREIGN POLICY: THEORY AND PRACTICE

- इकाई-1** विदेश नीति : अर्थ, प्रकृति और निर्धारक तत्व, भारतीय विदेशनीति के निर्धारक तत्व: आन्तरिक एवं बाह्य, भारतीय विदेश नीति के सिद्धान्त एवं उद्देश्य, उदभव एवं विकास।
Foreign policy : Meaning, nature and Determinants. Determinants of Indian Foreign Policy: Internal and External principles and objective, origin and Education of India foreign Policy.
- इकाई-2** भारत और अमेरिका और रूस, भारत और चीन
India and American, India and Ruse, India and China.
- इकाई-3** भारत और पाकिस्तान, भारत और बंगलादेश, भारत और श्रीलंका।
India and Pakistan, India and Banladesh, India and Srilanka.
- इकाई-4** भारत और नेपाल, भारत और भूटान, भारत और दक्षेस।
India and Nepal, India and Bhutan, India and SAARC
- इकाई-5** भारत और गुटनिरपेक्ष आन्दोलन
भारत और एसियान
भारत और हिन्द महासागर
भारत और आंतकवाद की समस्याएं
India and Non - Alignment movement
India and ASEAN.
India and Indian Ocean.
India and Problems of terrorisms



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

सेमेस्टर III

पेपर-III

अन्तर्राष्ट्रीय कानून

SEMESTER - III

PAPER - III

INTERNATIONAL LAW

- इकाई-1** अन्तर्राष्ट्रीय कानून – परिभाषा, प्रकृति, क्षेत्र, स्रोत विकास।
International Law - Definition, nature, scops sources development.
- इकाई-2** ग्रेशियस का योगदान, संहिताकरण राष्ट्रीय एवं अन्तर्राष्ट्रीय कानून में सम्बन्ध।
Grotius Contribution, Codification, Relation development National and International Law.
- इकाई-3** अन्तर्राष्ट्रीय कानून की सीमाएं व सम्भवनाएं तटस्थता – परिभाषा, विशेषताएं, प्रकार/तटस्थ राज्यों के अधिकार एवं कर्तव्य राज्यों के उत्तराधिकार।
Limitation and possibilities of International Law Neutrality - Definitions, characteristics, types/ Rights and Duties of Neutral state, state Succession.
- इकाई-4** संधिया – अर्थ, परिभाषा, वर्गीकरण, उद्देश्य, प्रभाव संधियों का पालन।
प्रत्यर्पण – अर्थ – स्वरूप, विकास, शर्तें, भारत में प्रत्यर्पण।
Treaties - meaning, definition, Classifications objects, effects, performance of treaties. Extradition - meaning, Nature, development - conditions Extradition in India
- इकाई-5** मान्यता – अर्थ, परिभाषा, सिद्धान्त, मान्यता के तरीके मान्यता के परिणाम, आश्रय – प्रकार, शर्तें, राजनयिक आश्रय।
Recognition - meaning, Definition, principles, methods, consequences.
Asylum - Types, conditions, Diplomatic asylum.
अन्तर्राष्ट्रीय कानून का प्रभाव – तृतीय विश्व के सन्दर्भ में।
Impact on International Law - With Reference of third World.
- सन्दर्भ –** व्ही. डी. महाजन – International Law
डॉ. बी. एल. फड़िया – अन्तर्राष्ट्रीय कानून
पी. आर. भाटिया – अन्तर्राष्ट्रीय कानून
वे।क्यादक & अन्तर्राष्ट्रीय कानून
C.G. Fenwick - International Law
K. Dutesh and S.Hoffman - The International Law



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

H Kulseen - Principles of International Law

सेमेस्टर III

पेपर- IV

भारत में संघात्मक प्रणाली

SEMESTER - III

PAPER - IV

FEDERAL SYSTEM IN INDIA

- इकाई-1** संघात्मक शासन :- अर्थ परिभाषा, संघात्मक शासन लक्षण।
संघात्मक शासन गुण - दोष, संघात्मक एवं एकात्मक शासन में अन्तर, भारत में संघीय व्यवस्था का उदभव एवं इतिहास।
Federal System - meaning, Definition, Features of Federal System, Merits and Demerits of Federal system, Differences between Federal and Unitary system, Origin and History of Federal System in India.
- इकाई-2** भारत में संघीय व्यवस्था और संविधान निर्माताओं के विचार, भारतीय संघात्मक व्यवस्था की संरचना (ढांचा) संघात्मक और एकात्मक लक्षण।
Federal system in India and Thought of Constitution Makers. structure of Federal system in India - Federal and Unitary Features.
- इकाई-3** सरकारी आयोग प्रतिवेदन
भारत में केन्द्र-राज्य संबंध - विधायी, प्रशासकीय, वित्तीय।
Sarkariya Commission Report
Centre - State relations in India - Legislative, Administrative and Financial.
- इकाई-4** नियोजित आर्थिक विकास और भारतीय राजनीति : संघवाद के विशेष सन्दर्भ में।
भारत में संघवाद पर नियोजन के प्रभाव:
Planned Economic Development and Politics in India- with special Reference to the Indian Federal System, Impact of Planning on Federalism in India.
- इकाई-5** क्षेत्रीय दल एवं संघीय व्यवस्था पर उसका प्रभाव।
भारतीय संघीय व्यवस्था की उभरती प्रवृत्तियां।
Regional Parties and their effects on Indian Federalism Emerging trends in Indian Federalism.
- सन्दर्भ-** पुखराज जैन एवं बी.एल. फड़िया - भारतीय शासन एवं राजनीति
हरीश कुमार खत्री - भारतीय संघीय व्यवस्था एवं स्थानीय स्वशासन
एस. आर. माहेश्वर - भारतीय शासन।
D.D. Basu - An Introduction to the Constitution of India
K.R. Bomwall - The Foundations of Indian Federalism.
R. Khan - Rethinking Indian Federalism
R. Kothare - Party System and Election studies



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

P. Kumar - Studies in Indian Federalism

सेमेस्टर IV

पेपर - I

भारत में राज्यों की राजनीति

SEMESTER IV

PAPER - I

STATE POLITICAL IS INDIAN

1. राज्यपाल – नियुक्ति, शक्तियां, वास्तविक स्थिति
मुख्यमंत्री – नियुक्ति, कार्य – शक्तियां, स्थिति
मंत्रिपरिषद – राज्य मंत्रिपरिषद के शक्तियां एवं कार्य
Governor - Appointment, Power and Position of Governor
Chief Minister - Appointment, Power, Function and Position
Council of Minister - Function and Power of State
2. राज्य व्यवस्थापिका – विधानसभा, विधान परिषद, राज्य विधान मण्डल के कार्य एवं शक्तियां
State Legislative - Legislative Assembly, Legislative Council, Power and function of State Legislative
3. राज्य न्यायपालिका : उच्च न्यायालय एवं अधीनस्थ न्यायालय गठन एवं कार्य शक्तियां
State Judiciary - High Court and Subordinate Courts: Composition, Function & Powers
4. राज्यों की स्वायत्ता की मांग—अर्थ, राज्य स्वयत्ता के पक्ष एवं विपक्ष में तर्क
राज्य राजनीति को प्रभावित करने वाले कारक
Demand for State Autonomy- Meaning, Arguments in Favour and against of State Autonomy. Factors influencing State Politics
5. अंतरराज्यीय परिषद – Inter State Council
राज्य योजना आयोग – State Planning commission
राज्य निवार्चन आयोग— State elation commission

संदर्भ ग्रंथ –

भारतीय शासन एवं राजनीति एवं राज्यों की राजनीति—डॉ. पुखराज जैन / डॉ. बी. एल. फड़िया

भारतीय राजनीति और संविधान—सुभाष कश्यप

एम पी राय – भारतीय शासन व राजनीति रजनी

कोठारी – भारत में राजनीति

हरिशचन्द्र शर्मा – भारत में राज्यों की राजनीति

पुष्पेश पंत – राजनीति दल और दलगत राजनीति

माइनर वीनर – भारत में राज्य राजनीति

Iqbal Narayan - State Politics in Indian

R. Kothari - Politics in India.

I.N. Sharma - The Indian Prime Minister

Prasad - Centre and State Powers Under



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
सेमेस्टर पाठ्यक्रम
एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

Indian Federation.

सेमेस्टर IV

पेपर – II

राजनय: सिद्धांत एवं व्यवहार

SEMESTER IV

PAPER - II

DIPLOMACY: THEORY AND PRACTICE

Unit-I: राजनय: अर्थ, परिभाषा, लक्ष्य, कार्य

Diplomacy: Meaning, definition, objective and function

राजनय: उत्पत्ति एवं विकास

Diplomacy: Origin and development

राजनय राष्ट्रीय शक्ति के साधन और यंत्र के रूप में, सीमाएं

Diplomacy as a means and tools, limitation

Unit-II: राजनय के प्रकार: नया एवं पुराना राजनय

Types of Diplomacy: Old and new diplomacy

नूतन प्रवृत्तियां: शिखर और संसदीय, प्रजातन्त्रात्मक और सम्मेलनीय, व्यक्तिगत राजनय, खुला एवं गुप्त राजनय

New trends: Summit and parliamentary, Democratic and conference, Personal diplomacy, Open and Secrete diplomacy

Unit-III: विभिन्न देशों की राजनय का स्वरूप— भारत, अमेरिका, ब्रिटेन, रूस, चीन, इटली, फ्रांस, संयुक्त राष्ट्र

Forms of diplomacy in different countries – India, America, Britain, Russia, China, Italy, France and United Nations.

Unit-IV: राजनयिक के गुण, राजनयिकों की कार्य प्रणाली, भाषा, श्रेणियां एवं उन्मुक्तियां

Qualities of diplomat, working of diplomat, language, their classes and immunities

Unit-V: भारतीय राजनय एवं संयुक्त राष्ट्र, संधिया एवं अंतर्राष्ट्रीय समझौते

महान राजनयज्ञों की भूमिका— कैसलरे, बिस्मार्क, वुडरो विलस, वी.के मेनन, के एस पनिक्कर, पी.वी नरसिंहराव

Indian diplomacy and United Nations, Treaties and International compacts

Role of Great diplomats – Castle-Reigh, Bismarhck, Woodrow Wilson, V.K. Menon, K.S. Pannikar, P.V. Narsimharao

संदर्भ ग्रंथ— डॉ हरीशचन्द्र शर्मा, के के जैन – राजनय के सिद्धांत

के. एम पनिक्कर – राजनय

हरीश कुमार खत्री – राजनय

श्रीमती कृष्णा राय, राजनय के सिद्धांत एवं व्यवहार

पुष्पेश पंत – भारतीय राजनय

हरीश चन्द्र शर्मा – राजनय के सिद्धांत



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

वी के उपाध्याय – भारतीय राजनय एवं विदेश नीति
भाटिया एवं गुप्त – राजनय तथा अंतर्राष्ट्रीय संगठन
H. Kissureger – Diplomacy
H-G Nieolson – Diplomacy
L.B. Pearson – Diplomacy in Nuclear Age
S: Reinseh - Secret Diplomacy
S Mansingh – Indias Search for power
B. Prasad – Origins of Indi's Foreign policy

सेमेस्टर IV

पेपर – III

मानव अधिकार: समस्याएं और संभावनाएं

SEMESTER IV

PAPER - III

HUMAN RIGHTS: PROBLEMS AND PROSPECTS

- Unit-I :** मानव अधिकार— अर्थ परिभाषा, प्रकृति, और ऐतिहासिक विकास
Human Rights- Meaning, definition, nature and historical development.
मानव अधिकार – विभिन्न विचारधारा— उदारवादी, मार्क्सवादी, गांधीवादी
Human Rights – Different perspective: Liberal, Marxist, Gandhian.
- Unit-II :** भारत में मानव अधिकार और कर्तव्य
Human Right and duties in India
राष्ट्रीय मानव अधिकार आयोग— संगठन, उद्देश्य, कार्य— शक्तियां, महत्व, भूमिका
National Human Rights commission- Organisation, Objects, function and power, importance, role.
- Unit-III:** महिला, बाल अल्पसंख्यक एवं शरणार्थियों के अधिकार
Rights of women, child, minority and refugees
- Unit-IV:** संयुक्त राष्ट्र एवं मानवाधिकार
United Nation and Human Rights
मानवाधिकार का सार्वभौमिक घोषणा
Univresal declaration of Human Right
मानवाधिकार का अंतर्राष्ट्रीय संरक्षण: नागरिक, राजनीतिक, सामाजिक और आर्थिक अधिकार
International protection of Human Rights- Civil, Political, Social and Economic Rights
- Unit-V:** सामूहिक अधिकार: आत्म निर्णय का अधिकार
Collective Rights, The Right of Self Determination
भारत में मानव अधिकारों की समस्याएं और संभावनाएं
Problems and Possibilities of Human Rights in India

संदर्भ—

रमेश प्रसाद गौतम, पृथ्वी पाल सिंह – भारत में मानव अधिकार
प्रो. आर.पी. जोशी – मानव अधिकार एवं कर्तव्य
व्ही.डी. महाजन – इंटरनेशनल लॉ



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

वेदालंकार – अंतर्राष्ट्रीय कानून
Amarta Sen – The Idea Justice
Upendra Baxi – The future of Human Right
S.N. Mishra – Public international law cultural law
S. Shubramanian – Human Right International challenge
T. Evans – The politics of Human Rights

सेमेस्टर IV

पेपर – IV

भारत में स्थानीय स्वशासन

SEMESTER IV

PAPER - IV

LOCAL SELF GOVERNMENT IN INDIA

- Unit-I:** स्थानीय स्वशासन— अर्थ, परिभाषा, विशेषताएं, कार्य, महत्व,
Local Self Government: Meaning, Definition, Features, Functions, Importance
स्थानीय स्वशासन के गुण—दोष
Merits – Demerits of Local self Government
- Unit-II:** भारत में स्वशासन का विकास
Evolution of local self government in India
73वां संवैधानिक संशोधन
73rd Constitutional Amendment
74वां संवैधानिक संशोधन
74rd Constitutional Amendment
- Unit-III:** ग्रामीण स्थानीय स्वशासन : संगठन, शक्तियां एवं कार्य, त्रिस्तरीय पंचायती राज व्यवस्था,
नियंत्रण
Rural Local self Government: Organisation, power and function Three tier
Pacnhayati Raj System, Control
- Unit-IV:** नगरीय स्थानीय स्वशासन: संगठन, शक्तियां एवं कार्य (नगर निगम, नगर पालिका) वित्त
व्यवस्था, नियंत्रण
Urban Local self Government: Organisation, power and function (Municipal
Corporation, Municipal Council) Finance & Control over
- Unit-V:** स्थानीय स्वशासन में नौकरशाही, लोकपाल-लोकायुक्त, सूचना का अधिकार
Local self Government and Bureaucracy, Lokpal-Lokayukta, Right to
information

संदर्भ –

भारतीय संघीय व्यवस्था एवं स्थानीय स्वशासन: हरीश कुमार खत्री
भारतीय प्रशासन: प्रो. मधुसूदन त्रिपाठी



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम

एम.ए. राजनीति विज्ञान (M.A. POLITICAL SCIENCE)

भारतीय शासन तंत्र एवं राजनीति – डॉ. बी.एल फड़िया

H.C. Sharma – Local Government in India (Hindi)

अशोक शर्मा – स्थानीय स्वशासन

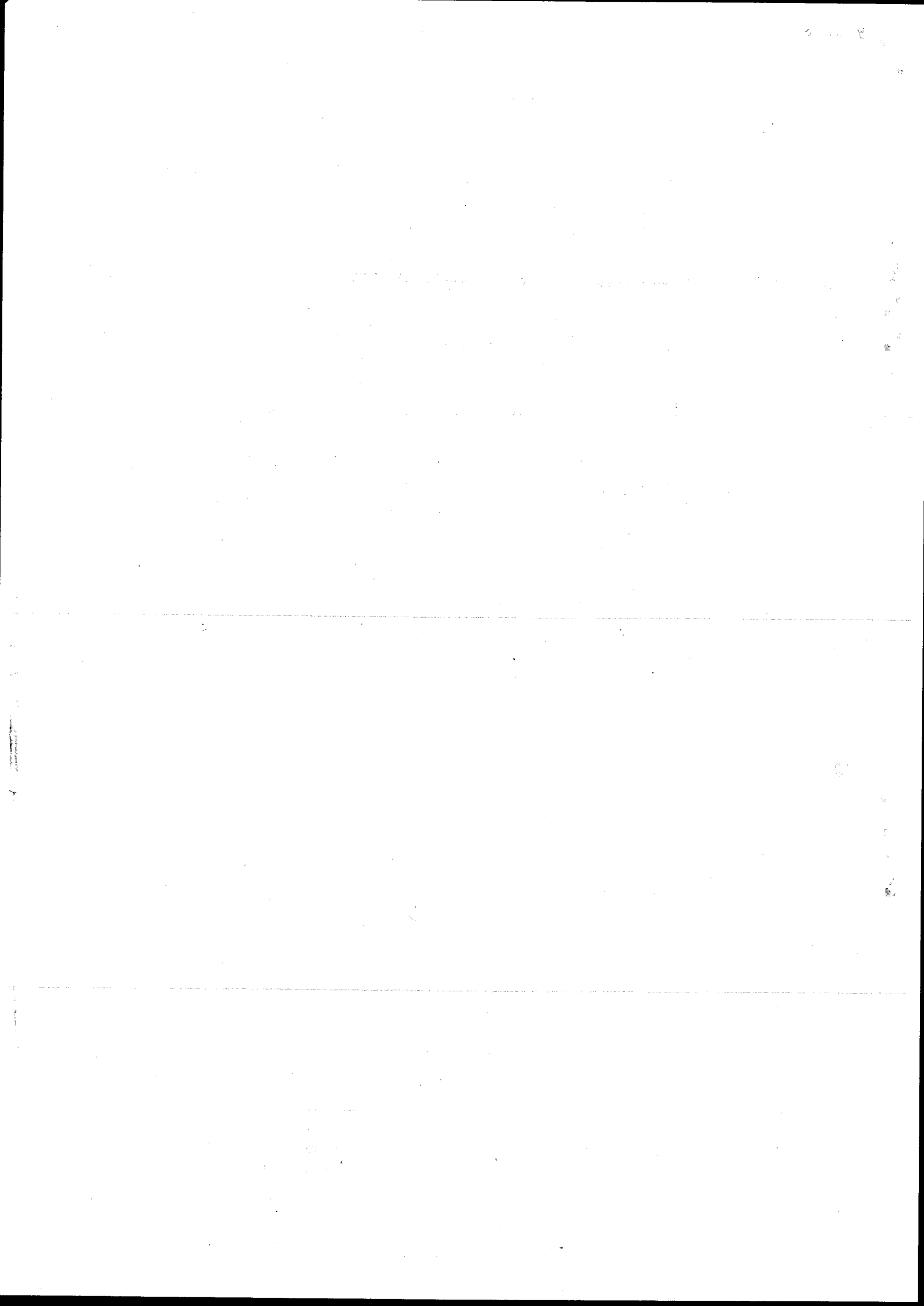
G. Ram Raddy – Panchayati Raj in India

S.R. Maheshwari – Local Government in India (Hindi – English)

S.R. Nigam – Local self Government

R.B. Jain – Panchayati Raj

A. Argal – Municipal Government in India





अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
M.A. SOCIOLOGY

SCHEME OF EXAMINATION & DISTRIBUTION OF MARKS

SEMESTER - I

Paper No.	Title of the Paper (s)	Internal Assessment		Term end Exam	Total Marks
		Seminar	Test		
1.	Classical Sociological Theories	10	10	80	100
2.	Methodology of Social Research	10	10	80	100
3.	Rural Sociology	10	10	80	100
4.	Urban Society in India	10	10	80	100

SEMESTER - II

Paper No.	Title of the Paper (s)	Internal Assessment		Term end Exam	Total Marks
		Seminar	Test		
1.	Modern Sociological Theories	10	10	80	100
2.	Social Research and Statistics	10	10	80	100
3.	Rural Development and Changes	10	10	80	100
4.	Urban Social Structure and Problems	10	10	80	100

SEMESTER - III

Paper No.	Title of the Paper (s)	Internal Assessment		Term end Exam	Total Marks
		Seminar	Test		
1.	Perspective of Indian Society	10	10	80	100
2.	Industrial Sociology	10	10	80	100
3.	Demographical Profile	10	10	80	100
4.	Criminology	10	10	80	100

SEMESTER - IV

Paper No.	Title of the Paper (s)	Internal Assessment		Term end Exam	Total Marks
		Seminar	Test		
1.	Theoretical Perspective & Indian Society	10	10	80	100
2.	Industry and Society in India	10	10	80	100
3.	Social Demography of India	10	10	80	100
4.	Criminology and Correctional Institutions	10	10	80	100



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
M.A. SOCIOLOGY

SEMESTER I PAPER – I

CLASSICAL SOCIOLOGICAL THEORIES

UNIT - I

Introduction of Sociological Theory – Meaning, Characteristics, types, problems.

UNIT – II

August Comte - Hierarchy of Science, Law of three stages, Positivism.

UNIT – III

Max Weber – Bureaucracy, theory of social action, concept of authority.

UNIT – IV

Karl Marx – Historical materialism, dialectic materialism, theory of surplus value, **Class struggle**

UNIT – V

Durkheim – Suicide, theory of social unity, **social division of labour - social theory of religion**

Reference Books-

1. Turner, J.H. (2001)- "The structure of Sociological Theory"
2. Zettin, I.M. (1981)- Ideology and the Development of Sociological theory, Prentice Hall, London
3. Adoms B.N. & Sylie R.A. (2002) - Sociological theory Vistar Publication, New Delhi.
4. Abraham, F. and Morgan J.H. (1985) - Sociological Thought from Comte to Sorokin.
5. Cambridge University Press - An analysis of writings of Marx, Durkheim and Weber, Cambridge University Press, Whole Book



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर(छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
M.A. SOCIOLOGY

SEMESTER I PAPER – II METHODOLOGY OF SOCIAL RESEARCH

UNIT - I

Introduction and process of Social Research – meaning, characteristics, objects, steps, Importance, types of scientific method, Hypothesis.

UNIT – II

Survey – Meaning, Characteristics, objects, limitations, types, social survey in India.

UNIT – III

Quantitative Method – Sampling, Sources of Data Collection, Scaling, Sociometry.

UNIT – IV

Qualitative Method – Observation, Interview, Schedule, Questionnaire, Case Study.

UNIT – V

Analysis of Data – Collection of data, Classification, Tabulation, Report Writing, Research Problems, Classification of facts.

Reference Books-

1. Bose, Pradeep Kumar (1995) - Research Methodology
2. Young P.V. (1977) - Scientific Social Surveys Research Prentice Hall, New Delhi.
3. Weber, M. (1974) - The Methodology of Social Sciences free press-Chicago.
4. Bailey, K.D. (1979) - Methodology of Social Research, (Macmillan free press London)
5. Mukherjee, P.N. (2000) - Methodology in Social Research (Dilemma and perspectives Essays in Honour of Radhakrishna Mukherjee) safe, New Delhi.



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
M.A. SOCIOLOGY

SEMESTER I PAPER – III RURAL SOCIOLOGY

UNIT - I

Rural Social System – Origin, Development, Indian Rural System, Indian Rural Social Structure.

UNIT – II

Rural Basic Concept – Peasant Society, Little Community, folk Culture.

UNIT – III

Rural Power Structure – Leadership, its changing patterns, **Village Panchayat**

UNIT – IV

Peasant Relations – Traditional and Contemporary.

UNIT – V

Indian Rural Process – Localization, Universalisation, Sanskritization, Little and Great tradition.

Reference Books-

1. Desai, A.R. (1977) - Rural Sociology in India, Popular Prakashan (Mumbai)
2. Dhanagare, D.M. (1988) - Peasant movement in India. OUP New Delhi.
3. Andre Betaille (1974) - 6 Essays in comparative Sociology Oxford, New Delhi.
4. Joshi, P.C. (1976) - Land Reforms in India alive, New Delhi.
5. Thomer D. (1956) - The Agrarian prospects in India, University Press, New Delhi.



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
M.A. SOCIOLOGY

SEMESTER I
PAPER – IV
URBAN SOCIETY IN INDIA

UNIT - I

Urban Society – Concept, importance, urban community, and urban life style.

UNIT – II

Classification of Urban Society – City and town, Development of City, Development to centralized special industries.

UNIT- III

Urbanization in India – Emerging trends of urbanization, Impact of Urbanization, Urban Culture.

UNIT – IV

Changing pattern of urbanization – Changing occupational, structure and social stratification – caste, class, sex, family and housing.

UNIT – V

Problems of Urbanization – Drugs Alcoholism, prostitution, slums, corruption, cyber crime.

Reference Books-

1. Bose, A. (1978) - Studies in India, Urbanization (1901-1971) Tata McGraw Hill
2. Gold Harry (1982) - Sociology of Urban Life. Prentice Hall, Englewood.
3. Collin worth, J.B. (1972) - Problems of Urban Society volume II George and unwind Ltd.
4. Bhardwaj. R.K. (1974) - Urban Development in India, National Publishing House.
5. Ronan Paddison (2001) - Hand Book of Urban Societies, Sage India.



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
M.A. SOCIOLOGY

SEMESTER II PAPER – I MODERN SOCIOLOGICAL THEORIES

UNIT - I

Modernism to post modernism – meaning, characteristics, differences and future.

UNIT – II

Structural, functional theory – Talkott parsons – social system and function, R.K. Merton-function and di-function and neo functionalism.

UNIT – III

Conflict theory – ~~Darheendoff~~, R. collins, Coser and Karl Mark.

UNIT – IV

Phenomenological Theory – ~~Edmund Husserl~~, A. Schutz Theory of ~~Ethnomethodology~~, Garfinkel

UNIT – V

Indian Sociological Theory – Radhakamal Mukherji – Theory of Social value. A.R. Desai-Emergence of nationalism in India. Vivekanand-Future of India. G.S.. Ghurey – Caste system.

Reference Books-

1. Coser, L.A. (2001) - Masters of Sociological Thought, Rawat Publishers, Jaipur.
2. Collins, R. (1997) - Theoretical Sociology, Rawat Publisher, Jaipur
3. Turner, J.H. - The Structure of Sociological Theory, Rawat Prakashan, Jaipur.
4. Alexander Jeffrey's (1987) - 20 Lectures: Sociological theory since World War II, New York Colombia University press.
5. Giddins Anthory (1983) - Central Problems in Social theory, Action, structure & contribution in Social Analysis Macmillan London.



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
M.A. SOCIOLOGY

SEMESTER II PAPER – II

SOCIAL RESEARCH AND STATISTICS

UNIT - I

Concept of Statistics – Meaning, Characteristics, Utility and Limitations.

UNIT – II

Central Tendency – Mean, Median, Mode – Characteristics, Meaning, Utility and Limitations and Problems.

UNIT – III

Diagrammatic presentation of facts – Meaning, Characteristics, types, utility, limitations.

UNIT – IV

Graphic presentation of facts – Meaning, types, method, law, utility.

UNIT – V

Computer in Social Research – Utility, problems and possibilities.

Reference Books-

1. Athance, D.M. - Fundamental of Statistics
2. Bailey, K.D. (1979) - Methodology of Social Research, Macmillan, free press.
3. Wilkinson, T.S. & Bhandarkar, P.L. - Methodology and Techniques of Social Research, Himalaya Publication House, Bombay.
4. Bose, Pradeep Kumar (1995) - Research Methodology, New Delhi, ICSSR
5. Punch, Kelth (1986) - Introduction to Social Research London, Sage.



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
M.A. SOCIOLOGY

SEMESTER II
Paper – III
RURAL DEVELOPMENT AND CHANGE

UNIT - I

Rural Demography and Change – Rural Economy, Rural Social Stratification.

UNIT – II

Rural Social institution-Family, Caste system, Caste Panchyat, Rural Education.

UNIT – III

Rural Change – Social change in Rural India, Role and Hurdles of industrialization and Urbanization.

UNIT – IV

Rural Social problems and Peasant unrest – Poverty, unemployment, indebtedness, Gutbandi, Migration.

UNIT – V

Rural Development and Programme – Planning, Progress, Problems, Panchayati Raj.

Reference Books-

1. Patel, M.L. (1974) - Changing Land Problems of Tribal India, Progress Publishers, Bhopal
2. Desai, A.R. (1979) - Rural Society in Transition Popular Mumbai.
3. Andre Beteille (1986) - Inequality and social change, Oxford New Delhi.
4. A.R. Desai (2003) - Rural Sociology in India, Popular Mumbai.
5. Bardhan, P. - Poverty, Agrarian,-Structure and Political Economy in India.



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
M.A. SOCIOLOGY

SEMESTER II Paper – IV URBAN SOCIAL STRUCTURE AND PROBLEMS

UNIT - I

City and City Dimension – Emile Durkheim, Karl Marx and Max Weber.

UNIT – II

Urban ecology and its theory – Concept, characteristics, **dimensions** theory, central area and Ecological patterns or importance of theory.

UNIT – III

Sociological Thinkers – Georges Semmeal – Metropolitans, Lueas Bearth – Urbanization, Redfield – Rural – Urban Continuum.

UNIT – IV

Urban Problems – Migration, Poverty, Unemployment, Environmental Pollution.

UNIT – V

Urban planning in Chhattisgarh – Meaning of Urban Planning, Objectives, impact, factors of planning, urban management problems in Chhattisgarh and hurdles, Chhattisgarh Nagar Nigam.

Reference Books-

1. Saunders Pater (1981) - Social Theory and Urban Question, Hutchinson.
2. Quinn, J.A. (1955) - Urban Sociology, S. Chand & Company New Delhi
3. Abrahamson, M (1976) - Urban Sociology, Englewood, Prentice Hall
4. Rohan Paddison (2001)- Handbook of Urban Societies, Sage, India
5. Bhardwaj, R.K. (1974) - Urban Development in India, National Publishing House.



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
M.A. SOCIOLOGY

SEMESTER III *change*
PAPER-I
PERSPECTIVES OF INDIAN SOCIETY

Unit-I

Indian Institutions-Dharma, Varna, Ashram, Karma, class, Elites, backward class, Minorities and Tribes.

Unit-II

Indian Social structure: Contemporary characteristics-Secularism, Modernization, Social mobility, Westernization, Industrialization and urbanization.

Unit-III

Diversity in Indian society- Geographical Diversity, Diversity in Religions, Beliefs and Rituals, Linguistic Diversity, Racial Diversity, Tribal Diversity, Political Diversity, Diversity related to marriage, Family & Kinship.

Unit-IV

Linkages and networks binding Regions, Groups and communities in Indian society. Factors for intensification of linkage and Network binding in Indian society. Consequence of increasing Linkages and networks in Indian society.

Unit-V

Concept of Rural- urban continuum, Traditional and Modernity as continuity between past and present in Indian society, Social Hierarchy in Indian Society.

Books for Reading:-

1. Dubey S.C. 1973: Social Science in a changing society (Lucknow University Press.)
2. Karve, Irawati 1961: Hindu Society: An Interpretation (Poona, Recan College.)
3. Oommen T.K. and P.N. Mukherjee 1986: Indian Sociology Reflections and Introspections, Popular Prakashan, Bombay.
4. Singh K.S. 1992: The People of India: An Introduction Seagull books Calcutta.
5. Singh Y. 1986: Indian Sociology: Social conditioning and Emerging concerns, Delhi Vistar.
6. Singh Y. 1973: Modernisation of Indian Tradition, Delhi, Thompson press.
7. Srinivas M.N. 1960: Indian's Villages Asia Publishing House Bombay.



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
M.A. SOCIOLOGY

SEMESTER III PAPER-II INDUSTRIAL SOCIOLOGY

UNIT-I

Industrial Sociology – Origin and development nature, scope and importance.
Industrial planning – Meaning, Objectives, Techniques and Problems.

UNIT-II

Industry, Industrialization and Industrial Revolution – Meaning, characteristics, forms causes and effects. Industrial Moral – Meaning, Characteristics, forms Importance, measures for raising Employee's morals

UNIT-III

Industrial Management – Meaning, Types, Functions and Importance.
Industrial Bureaucracy – Meaning, Characteristics, Types, Merits and Demerits.

UNIT-IV

Industrial Organization – Formal and Informal organization- **Meaning Characteristics & Scope. Industrial Relations and Human Relations – Objectives and Differences.**

UNIT-V

Industrial Disputes and Settlement – Meaning, Characteristics, Causes and Effects of Industrial Disputes. **Industrial Participation.**

REFERENCE BOOKS:

1. Watson K. Tony- 1995- Sociology work and Industry. Route edge Kegan Paul
2. Ramaswamy E.A. 1978 – Industrial Relations in India New Delhi.
3. Ramaswamy E.A. 1988. – Industry and Labour. OUP
4. Karnik V.B. 1970 – Indian Trade Union A Survey. Popular Prakashan Mumbai.
5. Memoria C.B. and Mamoria 1992 – Dynamics of Industrial Relation in India. Himalaya Publication Mumbai.
6. Laxmanna cet all 1990 – Workers Participation and Industrial Democracy. Global Perspective Ajantha Publications.



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
M.A. SOCIOLOGY

SEMESTER III PAPER- III DEMOGRAPHICAL PROFILE

Unit - I

Demography- Meaning, scope, subject matter and importance. Demographic study and Research in India.

Unit-II

Census- Meaning, characteristics, planning and scope of census, Importance of census.

Unit-III

Fertility and Birth Rates in India, Mortality in India, Density of Population

Unit-IV

Malthusian and Neo-Malthusian theory of population, Herbert Spencer's Biological theory of population, Karl Hechrich Marx's theory of population and theory of optimum population.

Unit-V

The problem of over population in India, Socio-cultural aspect of Indian population.

Reference Books-

1. Demography and population problem: Rajendra K. Sharma Atlantic publishers and Distributors.
2. Demography - D.S. Baghel & Kiran Baghel, Vivek publication Delhi- 07
3. Survey of Fertility and Mortality in Poona : Dandekar
4. Population and Development: The Demography Transition: Tim Dyson.
5. Human Development Report - 1993
6. Year book, Family welfare planning in India.
7. Census Report - 2011
8. Population problems: Thompson and Lewis.



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
M.A. SOCIOLOGY

SEMESTER III PAPER - IV CRIMINOLOGY

Unit - I

Conceptual Approaches to crime; Legal, behavioural and sociological, deviance, crime and delinquency, types of crime- economic, Violent, white Collar Crime.

Unit- II

Perspective on crime causation: classical, positivist psychological, Sociological.

Unit- III

Changing profile of crime and criminals: organized crime, crime against women and children, cyber crime, corruption.

Unit- IV

Social problems: Alcoholism and drug addiction, prostitution, suicide, terrorism.

Unit - V

Theories of Punishment: retributive, deterrent, reformatory utility and cost of punishment.

Books for Reading

1. Bedi, Kiran 1998-it is always possible, New Delhi. Sterling Publications put. Ltd.
2. Gill S.S. 1998 The Pathology of corruption, New Delhi: Harper Collins Publishers (India)
3. Makkar S.P. Singh and Paul C. Friday 1993 Global Perspective in Criminology Jalandhar: ABC Publications.
4. Ministry of Home affairs: 1998. Crime in India, New Delhi: Government of India.
5. Shankar das, Rani Dhavan, 2000 Punishment and the Prison; India & International Perspective New Delhi, sage, Publications.
6. D.S. Baghel and Kiran Baghel: Vivek Prakashan New Delhi.



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
M.A. SOCIOLOGY

SEMESTER IV PAPER - I THEORETICAL PERSPECTIVES OF INDIAN SOCIETY

Unit - I

Meaning, Definitions and Characteristics of sociological Perspectives, Major Perspectives of Sociology.

Unit- II

Concept of Ideological Perspective - Ideological perspectives of G.S. Ghuriye, M.K. Gandhi, Stya-Ahinsa.

Unit - III

Concept of Structural - Functional perspectives- M.N. Srinivas Structural-Functional Study of Village' "Rampura", concept of Sanskritization, S.C.Dubey's structural-Functional' Analysis of Village Shamirpet

Unit- IV

Concept of Marxian or Conflict Perspectives, Main Assumptions of Marxian Perspectives, Marxian Perspectives D.P. Mukherjee, A.R. Desai, Redhakamal Mukherjee.

Unit - V

Synthesis of textual and Field views. Irawati Karve's analysis of Indian society, A.M. Shah's Analysis of Indian Society, Civilization Perspectives of N.K. Bose, Surajit Singh sub- alterment Perspectives of B.R. Ambedkar.

Books for Reading

- 1) Dubey, S.C. 1973, Social Sciences in a Changing Society Lucknow University Press)
- 2) Karve, Irawati 1961: Hindu society, and Interpretations (Poona Deccan College)
- 3) Oormmem T.K. and P.N. Mukherjee eds. 1986: Indian Sociology reflection and Introspections popular Prakashan Bombay
- 4) Singh K.S. 1992: The People of India; an Introduction Seagull Books Edutra.
- 5) Singh 1986: Indian Sociology: Social Conditioning and Emerging Concerns' Delhi vistar
- 6) Singh Y. 1973: Modernization of Indian tradition, Delhi, Thomson Press.
- 7) Srinivas M.N.1960: India's Village Asia Publishing House Bombay



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
M.A. SOCIOLOGY

SEMESTER IV PAPER – II INDUSTRY AND SOCIETY IN INDIA

Unit - I

Industrial Planning – Meaning, Objectives, Problems, Industrial Planning in Indian. Social Responsibilities of industries.

Unit - II

Manpower planning – Meaning Characteristics, objectives, forms and importance. Incentive and Motivation– Meaning, Characteristics, types and importance. Industrial Accidents and safety Compensation and Rewards.

Unit - III

Leadership in industry– Meaning Characteristics, Type, Styles, Principles of Leadership, Importance of Labour Movement in Indian.

Unit - IV

Trade Unions – Introduction and functions Labour welfare in India, Social Security in **India**

Unit - V

Indebtedness of industrial Workers, Labour and Rationalization, Child and women Labour, Collective Bargaining.

Reference Books –

1. Watson K Tony – 1995 – Sociology work and Industry. Routedledge Kegan Paul.
2. Ramaswamy E.A. – 1978 - Industrial Relations in India. New Delhi.
3. Ramaswamy E.A. – 1988 – Industry and Labour. OUP
4. Karnik V.B. - 1970 – Indian Trade Union A survey Popular Prakashan Mumbai.
5. Mamoria C.B. And Mamoria – 1992 – Dynamics of Industrial Relation in india. Himaloya Publication Mumbai.
- a. Laxmanna et.al. – 1990 – Workers Participation and Industrial Democracy, Global Perspective Ajantha Publication



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
M.A. SOCIOLOGY

SEMESTER IV PAPER- III SOCIAL DEMOGRAPHY OF INDIA

Unit-I

Indian population- Rate of Increase and projection, Composition of population, Family Planning in India.

Unit-II

Public Health and Health services in India- Factors affecting the health, causes for law public health in India, Suggestions to improve the public health.

Unit-III

Population Education- Meaning, elements, objects and importance.

Unit-IV

Census in India, Population projection, population policy in India.

Unit-V

Economic aspect of Indian population, Demographic Factors and social change, world population,

Reference Books-

1. Demography and population problem: Rajendra K. Sharma Atlantic publishers and Distributors.
2. Demography - D.S.Baghel & Kiran Baghel, Vivek publication Delhi- 07
3. Survey of Fertility and Mortality in Poona : Dandekar
4. Population and Development: The Demography Transition: Tim Dyson.
5. Human Development Report - 1993
6. Year book, Family welfare planning in India.
7. Census Report - 2011
8. Population problems: Thompson and Lewis.



अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

सेमेस्टर पाठ्यक्रम
M.A. SOCIOLOGY

SEMESTER IV PAPER - IV CRIMINOLOGY AND CORRECTIONAL INSTITUTIONS

Unit-I

Correction and its forms: meaning and signification of correction, Form of correction.

Unit- II

Correctional programmes in prison: history of prison reforms in India, national policy of prison, problems of prison, human rights and prison management.

Unit- III

Alternatives to imprisonment: Probation, parole, open prisons sociology of prison.

Unit- IV

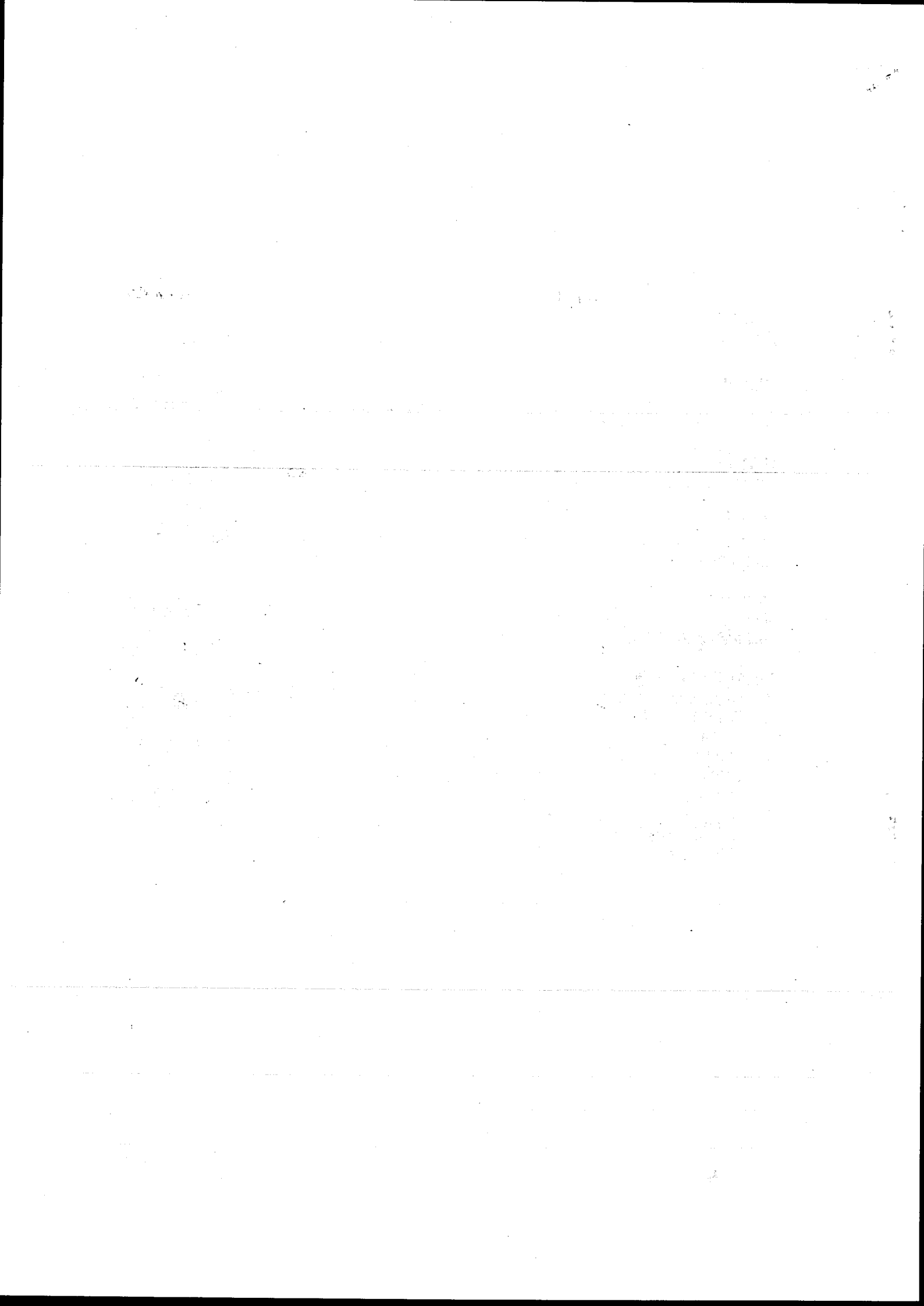
Role of police and judiciary in India: Police system in India, function of police, police and human rights.

Unit- V

After care services: After care program in India, after care program in Madhya Pradesh and Chhattisgarh.

Books for Reading -

1. Bedi, Kiran, 1998 It is always possible, New Delhi. Sterling Publications put. Ltd.
2. Gill S.S. 1998 The Pathology of corruption, New Delhi: Harper Collins Publishers (India)
3. Makkes S.P. Singh and Paul Friday 1993 Global Perspective in Criminology Jalandhar: ABC Publications.
4. Ministry of Home affairs: 1998. Crime in India, New Delhi: Government of India.
5. Shankar Das, Rani Dhavan, 2000 Punishment and the Prison; India & International Perspective New Delhi, sage, Publications.
6. D.S. Bangal and Kiran Baghal : Vivek Prakashan New Delhi.





बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS
M.A. ECONOMICS

SCHEME OF EXAMINATION AND DISTRIBUTION OF MARKS

At post graduate level candidate required to study 16 compulsory papers and 4 optional papers during 4 Semesters. There shall be 04 compulsory papers and 01 optional paper in I, II, III & IV semester.

Note: It is compulsory for the candidate to qualify first question paper of any one group of the optional paper in semester-I. Similarly one has to qualify the second question paper of the same group in semester-II. In the same way in semester-III & IV it is compulsory for the candidate to qualify both the question paper of any other group.

SEMESTER-I

Paper No.	Title of the Paper	Internal Assessment	Term End Exam	Total Marks
1.	Micro Economic Analysis	20	80	100
2.	Quantitative Methods	20	80	100
3.	Indian Economic Policy	20	80	100
4.	International Trade & Finance	20	80	100
OPTIONAL (Choose Any one Group)				
5.	Group A 1. Industrial Economics	20	80	100
5.	Group B 1. Labour Economics	20	80	100
5.	Group C 1. Demography	20	80	100
5.	Group D 1. Agriculture Economics	20	80	100
5.	Group E 1. Computer Application in Economic analysis	20	80	100
TOTAL				500

SEMESTER-II

Paper No.	Title of the Paper	Internal Assessment	Term End Exam	Total Marks
1.	Micro Economic Analysis	20	80	100
2.	Research Methodology and Computer Application	20	80	100
3.	Indian Economic Policy	20	80	100
4.	International Trade & Finance	20	80	100
OPTIONAL (Choose Any one Group)				
5.	Group A 2. Industrial Economics	20	80	100
5.	Group B 2. Labour Economics	20	80	100
5.	Group C 2. Demography	20	80	100
5.	Group D 2. Agriculture Economics	20	80	100
5.	Group E 2. Computer Application in Economic analysis	20	80	100
TOTAL				500



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS

M.A. ECONOMICS

SEMESTER-III

Paper No.	Title of the Paper	Internal Assessment	Term End Exam	Total Marks
1.	Macro Economic Analysis	20	80	100
2.	Public Economics	20	80	100
3.	Economics of Growth	20	80	100
4.	Environmental and Welfare Economics	20	80	100
OPTIONAL (Choose Any one Group)				
5.	Group A 1. Industrial Economics	20	80	100
5.	Group B 1. Labour Economics	20	80	100
5.	Group C 1. Demography	20	80	100
5.	Group D 1. Agriculture Economics	20	80	100
5.	Group E 1. Computer Application in Economic analysis	20	80	100
			TOTAL	500

SEMESTER-IV

Paper No.	Title of the Paper	Internal Assessment	Term End Exam	Total Marks
1.	Macro Economic Analysis	20	80	100
2.	Public Economics	20	80	100
3.	Economic Development and Planning	20	80	100
4.	Economics of Social Sector	20	80	100
OPTIONAL (Choose Any one Group)				
5.	Group A 2. Industrial Economics	20	80	100
5.	Group B 2. Labour Economics	20	80	100
5.	Group C 2. Demography	20	80	100
5.	Group D 2. Agriculture Economics	20	80	100
5.	Group E 2. Computer Application in Economic analysis	20	80	100
			TOTAL	500
			Grand Total	2000



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS
M.A. ECONOMICS

SEMESTER I
PAPER- I
(COMPULSORY)
MICRO ECONOMIC ANALYSIS

- UNIT- I** Basic Economic Problems, Deductive and inductive methods of analysis, Elasticity of demand (Price, Cross, Income) elasticity of supply, Theories of demand.
- UNIT – II** Utility, Indifference curve Income and Substitution effects Slutsky theorem, Compensated demand curve and their application.
- UNIT-III** Revealed Preference theory, Revision of demand theory of Hicks, Consumer's surplus.
- UNIT – IV** Production function – Short period and long period, law of variable proportion and return of scale Isoquants – least cost combination of inputs, Economics of scale, elasticity of substitution.
- UNIT – V** Euler's Theorem, Game Theory Technical Progress and production function Cob- Douglas, Cost and Revenue analysis.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
M.A. ECONOMICS

SEMESTER I
PAPER- II
(COMPULSORY)
QUANTITATIVE METHODS

- UNIT- I** Basic Concept – formulation of a linear programming problem its structure and variables, nature of feasible, basic and optional solution symmetrical and symmetrical distribution, measurement of Skewness-Karl Pearson's coefficient of Skewness, Blowley's coefficient of Skewness.
- UNIT- II** Simple Correlation, Measurement of correlation, Karl Pearson's coefficient of correlation, Partial and multiple coefficient of Correlation, Spearman's Coefficient of correlation, Interpretation of coefficient of correlation.
- UNIT- III** Regression analysis, regression and correlation, regression lines and regression coefficient, regression equations multiple regression analysis (up to three variables) standard error of the estimates, Inter Pollution and extrapolation, Method of fitting a parabolic curve, Newton's method of advancing difference, direct binomial expansion method and Lagrange's method.
- UNIT- IV** Probability, meaning and definition, Permutation and combination, Types of events, Measurements of Probability– addition and multiplication theorem, conditional probability.
- UNIT- V** Index Number, Meaning importance, points to remember while constructing index number, chain index number, cost of living index number, Fishers ideal index number Reversibility test– time Reversibility & factor Reversibility.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS
M.A. ECONOMICS

SEMESTER-I
PAPER- III
(COMPULSORY)
INDIAN ECONOMIC POLICY

- UNIT – I** GDP and National Income of India – Components and structure of GDP and national Income, Role of Primary, Secondary & Tertiary Sectors in GDP of India, National income and per Capita Income, Growth rates of GDP and per Capita income, saving Investment and Capital Formation Rates in India.
- UNIT – II** Economic Development and its Determinants – Approaches to economic Development and its measurement sustainable development; Role of State Market and other institution, Indicators of development PQLI, Human Development Index (HDI) gender Development Indices.
- UNIT– III** Planning in India- Objectives and strategy of planning, Failure and achievements of Plan, Developing grass-root organization for development Panchayat, NGO's and pressure groups.
- UNIT– IV** Demographic Features, Poverty and equality, Broad demographic features of Indian population, Rural- Urban Migration, Urbanization and civic annuities, poverty and Inequality.
- UNIT– V** The agriculture sector, institution Structure– Land reforms in India, Technological change in agriculture– input and output, agriculture finance policy, Agriculture marketing and warehousing, issues in food security policies for sustainable agriculture.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS
M.A. ECONOMICS

SEMESTER I

PAPER- IV

(COMPULSORY)

INTERNATIONAL TRADE & FINANCE

- UNIT – I** Theory of International trade– Meaning and distinguishing features of interregional and international trade, Difference and similarities between inter-regional and international trade, Smith's theory of absolute advantage, Ricardo's theory of comparative cost and Haberler' support unity cost theory.
- UNIT – II** Mill's Theory of reciprocal demand, offer curve analysis, Hecksher– Ohlin theory of international trade, factor price equalization, Stolper- Samuelson and Rybozynski theorems.
- UNIT– III** Measurement of gains from trade and their limitations, The terms of Trade –Concept, Determination of terms of trade, Factor affecting terms of trade, Terms of trade and Economic development, Terms of Trade and welfare implications, Trade as an engine of economic growth.
- UNIT– IV** The theory of interventions (Tariff, Quotas and non- tariff barriers) Economic effects of tariff Quotas on national income, output, consumption, Price employment, Terms of trade and income distribution, Dumping– Type, objective and effects of dumping, current incidence of dumping in India and its impact on our economy, anti-dumping measure.
- UNIT– V** Meaning and components of balance of Payment (BOP), Equilibrium and disequilibrium in the BOP, measures to correct the adverse BOP, Marshall –Lerner's conditions under devaluation, expenditure switching policies and direct control.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS
M.A. ECONOMICS

SEMESTER II

PAPER- I

(COMPULSORY)

MICRO ECONOMIC ANALYSIS

- UNIT- I** Price and output determination- perfect competition – short run and long run, Equilibrium of the firm and industry, monopoly – price and output equilibrium under monopoly, price discrimination, monopoly control and regulation.
- UNIT- II** Monopolistic competition- General and Chamberlin approaches to equilibrium and selling cost, oligopoly- non collusive (Curnot, Bertrad, Kinked Demand Curve) and collusive (Cartels mergers & Price leadership) Baumols sales revenue maximization model, Baines limits pricing theory.
- UNIT- III** Distribution- Marginal Productivity theory of distribution, Modern Theory of Distribution, Rent- Recardian and modern theory, Theory of interest and IS-LM Curve model.
- UNIT- IV** Theory of wages-wage determination under perfect and imperfect competition, Theories of profit, risk uncertainty and innovation theory, Welfare economics and general Equilibrium-Pigouvian welfare economics, Pareto optional condition.
- UNIT - V** Social welfare function, compensation principle, theory of second best – Arrow's impossibility theorem, partial and general equilibrium, walrasian excess demand and inputs output approaches to general equilibrium.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS

M.A. ECONOMICS

SEMESTER II

PAPER- II

(COMPULSORY)

RESEARCH METHODOLOGY AND COMPUTER APPLICATION

- UNIT- I** Association of attributes, Meaning and types of association, consistency of data, methods of determination association – method of comparison of observed and expected frequency, method of comparison of proportion, coefficient of association using Yule's method. Time series analysis, Short period oscillation, Trend, Semi average method, Moving average method, Method of least squares, Graphical presentation.
- UNIT- II** Research methodology and research methods, Research meaning, types and motivation of research, main stages of statistical research, primary and secondary data, methods of collecting primary data, secondary data; different sources, precautions while constructing questionnaire.
- UNIT- III** Sampling and sample design, census and sample methods, methods of sampling: random sampling methods and non random sampling methods, size of sample, merits and limitations of sampling, classification, types of classifications, types of classifications, tabulation of data parts of a table, types of tables.
- UNIT- IV** Hypothesis, meaning and types of hypothesis, procedure of test of significance, student's "T" test, Chi-square test and F ration test, Practical problems related to significance of the difference between small samples.
- UNIT- V** Computer, What is computer, Different parts of computer, Hardware and software, Types of computer, Main characteristics of a computer, Role of Computer in economic research.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS
M.A. ECONOMICS

SEMESTER II
PAPER- III
(COMPULSORY)
INDIAN ECONOMIC POLICY

- UNIT-I** Industrial Sector, Industrial Policy, Public sector enterprises and their performance, Problem of sick units in India, Privatization and disinvestment debate growth and pattern of industrialization.
- UNIT- II** Public Finances & Banking, Fiscal federalism: Centre – state financial relation: Finances of central government, Finances of state government; Fiscal sector reforms in India, Review of monetary policy of RBI.
- UNIT- III** External Sector & Economic Reforms- Issues is export –import policy and FEMA, Exchange Rate policy foreign capital and MNCs in India, the Progress of trade reforms in India.
- UNIT- IV** Balanced Regional Development indicators of regional, imbalance courses of Economic backwardness and regional imbalances
- UNIT- V** WTO and its Impact on different sector of economy, Economic, Reforms Rational of internal and external reforms, Budget (Country and states), How to Prepare a budget of central and state Government



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS
M.A. ECONOMICS

SEMESTER II

PAPER- IV

(COMPULSORY)

INTERNATIONAL TRADE & FINANCE

- UNIT- I** Theories of Exchange rate – Equilibrium Exchange rate free market theory of exchange rate, Concept of foreign exchange rate, the purchasing power parity theory, balance of payments theory, spot and forward exchange rates, fixed and flexible exchange rates, their merits & demerits.
- UNI – II** Emerging international monetary system, Reform of international monetary system in India and developing countries, Functions, achievements and failure of WTO (TRIPS, TRIMS) UNCTAD, IMF, World Bank.
- UNIT- III** Asian Development Bank, World Bank and India, European Economic Community, Rational and Economical progress of SAARC and ASEAN regions.
- UNIT- IV** Theory of short term and long term capital movement and international trade-1 port folio investment and international trade, 2. FDI & FII international trade, Merit's & de-merit of long term capital movement, Global financial crisis and global recovery.
- UNIT- V** Trade Problems and trade policies in India after reforms, Recent change in the direction and composition of trade and their implications, impact of trade reforms since 1991, instruments of export promotion, Recent import & export policies in India, Problems of India's international debt.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS

M.A. ECONOMICS

SEMESTER III

PAPER- I

(COMPULSORY)

MACRO ECONOMIC ANALYSIS

- UNIT – I** Definitions and concepts of National Income (NI) and national product, methods of measurements of NI and difficulties in the measurement of NI, Different forms of national income accounting, social accounting, input-output accounting, NI and welfare.
- UNIT – II** Consumption– Marginal and average propensity to consume, Keynes Psychological laws of consumption, determinants of consumption function, Income consumption relationship-absolute income hypothesis, Duisenberg's relative hypothesis, Permanent Income hypothesis and life cycle hypothesis.
- UNIT – III** Meaning and types of investment, determinants of investment, marginal efficiency of capital investment, saving and investment equality, multiplies, accelerator, super multiplier, employment, Theory– Classical theory, Keynesian theory of income and employment, Comparative Study
- UNIT – IV** Demand for Money– Fundamental equation of Keynes post Keynesian approach to demand for money– Patinkin, Boumol's, James Tabin, Friedman, Gurley & Shaw's approaches.
- UNIT – V** The Product market equilibrium, the money market equilibrium, General Equilibrium of product and money market, changes in general Equilibrium.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
M.A. ECONOMICS

SEMESTER III
PAPER- II
(COMPULSORY)
PUBLIC FINANCE

- UNIT – I** Role of Government in organize society, Principles of maximum social advantage taxation– different forms, principals of taxation, Shifting, effects and incidents of taxation, Impact of tax under laws of returns and perfect competition.
- UNIT – II** Indian tax System, Indirect & direct tax, corporate tax, personal income tax, estate duty, central excise, custom duties, taxes on land and agriculture, value added tax, MODVAT, Service tax, taxable capacity, tax reforms in India.
- UNIT – III** Public expenditure- Different forms of expenditure, structure and growth of public expenditure in India, trends in central govt. expenditure, economic effects of public expenditure on production and distribution, public expenditure and economic growth.
- UNIT – IV** Public debt– Different source of public debt, Redemption of public debt, principles of public debt management, Growth of Public debt in India
- UNIT – V** Budget– budget process in India, objectives of budget, kinds of budget– traditional budget, performance budget, zero based budget, out come budget, gender budget, budget theory–classical view point, balance budget, modern view point, imbalance budget.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS
M.A. ECONOMICS

SEMESTER III
PAPER- III
(COMPULSORY)
ECONOMICS OF GROWTH

- UNIT – I** Economic Growth: Economic growth and development, measurement of economic growth, Economic growth model vicious circle of poverty, Physical Quality of life index, Human development index, UNDP Human development report 2010, inclusive growth.
- UNIT – II** The concept of capital output ratio, input– output analysis, project evaluation and cost-benefit analysis, Methods of project evaluation.
- UNIT – III** Theories of Development: the Marxian model, The Schumpeterian model, Keynesian Model, theory of development, mahalanobis four sector model.
- UNIT – IV** Theories of development Harrod- Domar Model: Arthur Lewis Model unlimited supply of labour, Ranis & Fie Mode, Kaldor Model of distribution.
- UNIT – V** John Robinson model, Meads New- Classical model Hicks and Hayek model, Solow model of long-run growth.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
M.A. ECONOMICS

SEMESTER III
PAPER- IV
(COMPULSORY)
ENVIRONMENTAL AND WELFARE ECONOMICS

- UNIT – I** Welfare Economics - Definition of welfare economics, Criterion of social welfare, Cardinal Criterion, Pareto Optimality Criteria, Kaldor– Hicks Compensation Criterion, The Bergson Criterion, the problem of second best.
- UNIT – II** Social welfare function, Maximization of social welfare, Maximization in perfect competition, public goods and private goods, market failure & public goods.
- UNIT – III** Environmental Economics– Beneficiation of Environmental Economics, Relation between environmental Economics and economics, Environmental Economics and ecological economics, environmental and resource economics, important issues in environmental Economics, Macroeconomic policy and environment.
- UNIT – IV** Theories of Externalities– Economies and diseconomies, External Cost, Marginal social cost, Marginal private cost, Pigeons taxes and subsidies.
- UNIT – V** Environmental value– Use value, option value and non use value, International carbon tax, environment and W.T.O.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
M.A. ECONOMICS

SEMESTER IV

PAPER- I

(COMPULSORY)

MACRO ECONOMIC ANALYSIS

UNIT – I Supply for Money

Quantity Theory of Money– Fisher's and cash balance (Cambridge) approach, definition of money supply, determinants of money supply, RBI approach to money supply, budget deficits and money supply, High Powered money, control of money supply.

UNIT – II Concept of inflation, semi and full inflation, Demand pull and cost push Inflation, theory of structural inflation, causes & effects of inflation, Stagflation, control of inflation, The Philips curve analysis.

UNIT – III Business cycles- main features of business cycles, Types of Business cycle, Theories of Business cycles, Hawtrey's monetary theory of trade cycle, Schumpeter's Keynes Hicks, Samuelson's, Friedman, Kaldor model of trade cycle, Control of business cycle.

UNIT – IV Monetary policy– Meaning of monetary policy, instrument of monetary policy, Objective of Monetary policy, limitations of monetary policy, monetary policy and economic development, new classical macro economics.

UNIT – V International Monetary System & Fiscal Policy- International Monetary system, International Liquidity problem, SDR & New International Economic Order, Meaning & objectives of Fiscal Policy, instruments of fiscal Policy.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS
M.A. ECONOMICS

SEMESTER IV
PAPER- II
(COMPULSORY)
PUBLIC ECONOMICS

- UNIT – I** Fiscal federalism in India, principles of fiscal federalism, finance commission report, vertical and horizontal imbalance
- UNIT – II** Fiscal Policy– Objectives of Fiscal policy, theory of Fiscal Policy, Policy in under developed countries, Economic Stability and fiscal policy and full employment, Fiscal policy and economic development: A Study in Development finance.
- UNIT – III** Federal finance – Principle of federal finance in India, Centre–state financial relation, resource transfer from centre to state, Godgil formula.
- UNIT – IV** Analysis of central & Chhattisgarh Govt. budget, Taxable and non taxable income of Chhattisgarh, Structure and growth of public expenditure in Chhattisgarh.
- UNIT – V** Financial responsibilities and budget management Act, Performance of the Chhattisgarh Govt. Budget, Plan & Non plan, Expenditure in Chhattisgarh.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS
M.A. ECONOMICS

SEMESTER IV

PAPER- III

(COMPULSORY)

ECONOMIC DEVELOPMENT & PLANNING

- UNIT- I** Economic Planning: Objective, achievements and failure of Indian Plans, Resource mobilization in Indian plan, Strategy of Indian Plan, Saving capital formation and overall growth rate, Eleventh five year plan (2007-12) Midterm appraisal of eleventh five year plan.
- UNIT- II** Approaches to development – Vicious circle of poverty, Big-Push theory, theory of critical minimum efforts, balanced and unbalanced growth.
- UNIT- III** Investment criteria in economic development, The social marginal productivity criteria, the capital turnover criteria, The Re-investment criterion, Time series criterion Fiscal.
- UNIT- IV** Fiscal and monetary policy, human capital formation in developing countries, Economic crises in developed and developing countries with special reference to economic development
- UNIT- V** Problems of development; measuring poverty of world and India, Income Inequalities, unemployment, the choice of techniques, sustainable Development, role of state in economic development, problem of price-rise in India.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
M.A. ECONOMICS

SEMESTER IV
PAPER-IV
(COMPULSORY)
ECONOMICS OF SOCIAL SECTOR

- UNIT-I** Pollution– Classification of pollution, Control of pollution, Air pollution control, water pollution control, pollution control strategies, cost benefits analysis of pollution environment and pollution.
- UNIT-II** Environmental protection, Environmental laws, Protection, Environment and development, Sustainable development, population growth and environmental issues-global warming, climate change, green house effect.
- UNIT- III** Resource – Classification of Resource, Renewable Resource, Non-renewable, optimum use of resource, land resource, forest resources, social forestry, peoples participation in the management of common and forest land energy efficiency and environment energy taxation, atomic & Solar Energy.
- UNIT- IV** Education– Economics of education, Expenditure on education, Productive expenditure on education, productivity of education, the return education, Human capital Vs. Physical capital, Educational reforms and Right the Education Act.
- UNIT- V** Health Economics, Determination of health care, malnutrition, the concept of Human life, Inequalities in Health-Class and Gender, Prospective HDI GDI, GEM and HPI.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS
M.A. ECONOMICS

SEMESTER – I / III

GROUP- A

(OPTIONAL)

1. INDUSTRIAL ECONOMICS

- UNIT – I** Framework and Problems of Industrial Economics– Concept and organization of a firm ownership, Control and objectives of the firm, passive and active behavior of the firm
- UNIT – II** Market Structure– Seller's concentration Product differentiation; Entry conditions; Economics of scale; Market structure and profitability; Market structure and innovation; Theories of industrial location; Weber and Sergeant Florence Factors affecting location.
- UNIT – III** Market Performance– Growth of the firm– Size and growth of a firm; Growth and profitability of the firm; Constraints on growth; Productivity, efficiency and capacity utilization– Concept and measurement, Indian situation.
- UNIT – IV** Indian industrial Growth and Pattern– Classification of industry, Industrial policy in India– Role of Public and private sectors, Recent trends in Indian industrial growth, MNCs and transfer of technology.
- UNIT – V** Liberalization and Privatization– Regional Industrial growth in India, Industrial economic concentration and remedial measures, issues in Industrial proliferation and environmental preservation, Pollution control policies.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS
M.A. ECONOMICS

SEMESTER – I / III

GROUP- B

(OPTIONAL)

1. LABOUR ECONOMICS

- UNIT – I** Labour Market– Nature and characteristics of labour market, Analysis classical, new classical. Analysis of demand and supply, labour forces, demand for labour relating to choice of technology.
- UNIT – II** Supply of labour in relation to growth of labour force– Rationalization, methods of recruitment and placement, Employments revise organization in India.
- UNIT – III** Employment– Employment and development relationship poverty and unemployment-concept, Types and measurement, particularly in India, Causes of unemployment issues relating to employment rationalization.
- UNIT – IV** Technological change and modernization on employment in organized. Private industry, public sector and employment in agriculture sector
- UNIT – V** Wage determination– Various classical, neo classical and bargaining theories of wage determination, various concepts of minimum wages and fair living, Problem of implementation of minimum wages.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS
M.A. ECONOMICS

SEMESTER – I / III

GROUP- C

(OPTIONAL)

1. DEMOGRAPHY

- UNIT – I** Demography– Meaning, Scope and importance of demography sources of demographic data. Tools of demography analysis, Measurement of population growth and population pyramid.
- UNIT – II** Theories of population – Malthus theory, Socio–culture and economic theories of population, Biological theories of population, Theory of optimum population, Theory of demographic transition.
- UNIT – III** Fertility– Meaning and definition of fertility, Measurement of fertility – child woman ratio, crude birth rate, corrected birth rate, General fertility rate.
- UNIT – IV** Age specific fertility rate, Total fertility rate, Gross reproduction rate, and Net reproduction rate, calculation of fertility rates, determination of fertility Trends fertility in India.
- UNIT – V** Mortality and morbidity– Importance of mortality data causes of death, Meanings of morbidity, Differentials in mortality and morbidity.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS
M.A. ECONOMICS

SEMESTER – I / III

GROUP- D

(OPTIONAL)

1. AGRICULTURE ECONOMICS

- UNIT – I** Nature and scope of Agriculture economics, Traditional and modern agriculture, Role of agriculture in economic development, Problem in rural industrialization.
- UNIT – II** Development of agro– based industries, between agriculture and industry, Green revolution, Agricultural Production, Production function analysis, cost concept in agriculture product, farm budgeting,
- UNIT – III** Resource use and efficiency in agricultural sector, Land use, Principles of land utilization, land use, Principles of land utilization, land distribution, Land values and rent, Land reform measures and performance, Land tenures and farming system.
- UNIT – IV** Problem of marginal and small farmers, Rural Labour Supply, Mobility of labour and labour market in agriculture sector
- UNIT – V** Nature of employment in rural sector Agriculture wages in India. Male – Female wage difference in agriculture.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS
M.A. ECONOMICS

SEMESTER – I / III

GROUP- E

(OPTIONAL)

1. COMPUTER APPLICATION IN ECONOMIC ANALYSIS..

- UNIT – I** Introduction to commuter and peripherals: Basic components of computer CPU input–device, Keyboard, Mouse and Scanner, Video display, Printer and Plotters.
- UNIT – II** Data storage and retrieval, hard disk, floppy disk and CD ROM: Types of computers and their applications, computers networking and resources sharing hardware, Software and firmware.
- UNIT – III** Examples and techniques in programming languages elementary Knowledge only, Data processing, Techniques and algorithms concepts of data record and file. Types of data and data structure, data analysis, file handling and operations like opening.
- UNIT – IV** Appending and cascading, closing and attribute control, data storage and retrieval, data Operations algorithms like sorting, merging, joining and bifurcation database and operation on database, DBMS and RDBMS.
- UNIT – V** Statistical Processing Techniques and Methods series, tables, Graphs and object time and frequency series,



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS
M.A. ECONOMICS

SEMESTER – II / IV

GROUP- A

(OPTIONAL)

2. INDUSTRIAL ECONOMICS

- UNIT– I** Industrial Finance – Owned external and other components of funds; Role, nature, volume and types of institutional finance – IDBI, IFCI, SFCs, SIDC. Commercial banks etc
- UNIT– II** Financial Statement– balance sheet, profit and loss account, assessment of financial soundness
- UNIT– III** Project Appraisal-Cost– Benefits analysis– Net Present Value (NPV) and internal rate of return (IRR) criteria – balancing private and social returns.
- UNIT– IV** Industrial Labour – Structure of industrial labour, Employment dimensions of Indian industry; Industrial legislation; Industrial relations; Exit policy and social security; Wages and problem of bonus – labour market reforms.
- UNIT– V** Current Problems of selected Industries– Iron and Steel, Cotton textiles, jute, sugar, coal, cement and engineering goods, development of small– scale and collage industries in India.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS
M.A. ECONOMICS

SEMESTER – II / IV

GROUP- B

(OPTIONAL)

2. LABOUR ECONOMICS

- UNIT – I** Wage determination by Qatar- urban & rural, Organized and unorganized. Wages and inflation, Productivity and wage relationship, Profit sharing scheme, Causes of wage differentials in terms of firm, occupation and region.
- UNIT – II** Industrial Relation– Industrial Relation and trade Unions Industrialization and emergence of trade unionism, Growth structure and pattern of trade unionism Achievements and failures of trade union movement.
- UNIT – III** Causes of industrial disputes, Step to achieve Industrial peace, Method of settlement of industrial disputes collective bargaining, Conciliation arbitration role of judicial activism, labour legislation in India, Indian labour law and practices in relation to international labour standard.
- UNIT – IV** State and labour in India– State and social security of labour, concept of social security and its evolution social assistance, Review and appraisal of state policies with respect to social security and labour welfare in India.
- UNIT – V** Special problem of labour, Child labour, Female labour, discrimination and gender bias in treatment of labour, Labour market reform– exit policy need for safety nets, Measures impairing, Flexibility in labour markets, Social Insurance, Second National commission of labour, globalization and labour markets.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS
M.A. ECONOMICS

SEMESTER – II / IV

GROUP- C

(OPTIONAL)

2. DEMOGRAPHY

- UNIT – I** Measurement of mortality, crude death rate, age- specific death rate, Infant mortality rate, Standardized death rate and maternal mortality rate, calculation of mortality rates.
- UNIT – II** Trends in mortality in India, life table, Migration and urbanization, Population projection, growth of population in India, Population and economic development.
- UNIT– III** Population explosion in India, Demographic characteristics of developing countries, Population policy of India
- UNIT– IV** Women Empowerment– Economics status, Women in decision making, Women and labour market, Evolution of population policy in India– The shift in policy from population control to family welfare, to women empowerment.
- UNIT – V** Family planning strategies and their outcomes, the new population policy, Tasks before the National Population Commission.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS
M.A. ECONOMICS

SEMESTER – II / IV

GROUP- E

(OPTIONAL)

2. COMPUTER APPLICATION IN ECONOMIC ANALYSIS

- UNIT– I** Regression methods and technique regression analysis data validation, trends and cycle city forecasting system modeling and description;
- UNIT– II** System equation, specification, error and correction strategies, statistical modeling and descriptive statistic, distribution functions, regression statistics.
- UNIT– III** I.T. application commerce, Online Banking ATN's Electronic stock, Exchange electronic trading data sharing and decimation, electronic transition, documents delivery, authentication and validation transaction, processing.
- UNIT– IV** I.T. Application to commerce electronic trading and marketing, Online shopping and malls, B2B, B2C, and G2B, models and their applications.
- UNIT – V** Document and transaction security and digital signature, integrated transition on mobile platforms.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS
M.A. ECONOMICS

SEMESTER – II / IV

GROUP- D

(OPTIONAL)

2. AGRICULTURE ECONOMICS

- UNIT– I** Rural finance: Rural Finance– role of rural capital and rural credit, rural capital and capital formation, characteristics and source of rural credit, Institutional and non institutional rural credit, Rural bank, Regional Rural banks and rural credit co-operative societies.
- UNIT– II** Agriculture price Agriculture market, behavior of agriculture price, agriculture, Markets and agriculture marketable surplus, Taxation, crop insurance, state policy and agriculture price policy.
- UNIT– III** Agricultural Growth in India: Agricultural growth in India– recent trends, interregional variation in growth of agriculture product, cropping pattern, factors affecting productivity, pricing of input, role of subsidies, role of technology and input of irrigation in agricultural sector.
- UNIT– IV** Problem and prospects of Globalization and W.T.O. in India, Agricultural commodities, Infrastructure and economic development, the structure of Transportation costs.
- UNIT– V** Demand for transportation, cost function in the transport Sector, Telephone utilities, role of postal services, Demand for energy, energy conservation, renewable and non-conventional sources of energy.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS
MASTER OF SOCIAL WORK

SCHEME OF EXAMINATION & DISTRIBUTION OF MARKS

SEMESTER - I

Paper No.	Title of the Paper (s)	Internal Assessment	Term End Exam	Total Marks
1.	Social Work History & Ideology	20	80	100
2.	Human Growth & Development	20	80	100
3.	Working with Individuals	20	80	100
4.	Working with Group	20	80	100
5.	Practicum / Field work	-	-	100

SEMESTER - II

Paper No.	Title of the Paper (s)	Internal Assessment	Term End Exam	Total Marks
1.	Social Work Research	20	80	100
2.	Social Policy Planning & Welfare Administration	20	80	100
3.	NGO Management & Disaster Relief services	20	80	100
4.	Working with Community	20	80	100
5.	Practicum / Field work	-	-	100

SEMESTER - III

Paper No.	Title of the Paper (s)	Internal Assessment	Term End Exam	Total Marks
1.	Integrated Social Work Practice	20	80	100
2.	Social Development	20	80	100
Community Development Group				
3.	Urban Community Planning & Development	20	80	100
4.	Rural Community Planning Development	20	80	100
Human Resource Management Group				
3.	Indian Labour Problem & Legislation	20	80	100
4.	Management of Industrial Relation	20	80	100
5.	Practicum /Field work (Compulsory)	-	-	100

SEMESTER - IV

Paper No.	Title of the Paper (s)	Internal Assessment	Term End Exam	Total Marks
1.	Counseling & Social Work Practice	20	80	100
2.	Legal System in India	20	80	100
Community Development Group				
3.	Tribal Community Planning & Development	20	80	100
Human Resource Management Group				
3.	Human Resource Management & HRD Practice	20	80	100
4.	Project /Dissertation + Viva voce (Compulsory)	-	-	200



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
MASTER OF SOCIAL WORK

Master of Social Work (Semester Pattern)
Scheme of Evaluation for Practicum/Field Work/Project/Dissertation (From Session 2017-18)

Semester-I	Practicum/Field Work/ Project/ Dissertation	Marks Distribution		Total
		Internal Examiner	External Examiner (Report Evaluation/ Viva-Voce)	
	Agency Visit	25	25	50
	Concurrent Field Work	25	25	50
		50	50	100

Note: - A Student required to spend a minimum of 6-8 hour per week for field work.

Semester-II	Practicum/Field Work/ Project/ Dissertation	Marks Distribution		Total
		Internal Examiner	External Examiner (Report Evaluation/ Viva-Voce)	
	Rural Camp	25	25	50
	Summer Training	25	25	50
		50	50	100

Note: - Rural camp should be conducted for one week and summer training should be conducted for 15 days

Semester-III	Practicum/Field Work/ Project/ Dissertation	Marks Distribution		Total
		Internal Examiner	External Examiner (Report Evaluation/ Viva-Voce)	
	Study Tours	25	25	50
	Concurrent Field Work	25	25	50
		50	50	100

Note: - A Student required to spend a minimum of 6-8 hour per week for field work.

Semester-IV	Practicum/Field Work/ Project/ Dissertation	Marks Distribution		Total
		Internal Examiner	External Examiner (Report Evaluation/ Viva-Voce)	
	Concurrent Field Work	25	25	50
	Project Work/ Dissertation/Viva-voce	100	50	150
		125	75	200

Note: - 1. A Student required to spend a minimum of 6-8 hour per week for field work.

2. PROJECT WORK / DISSERTATION & VIVA-VOCE- A student shall be required to do a project work, on a theme to be decided in consultation with the competent faculty/HOD and will have to submit a dissertation/Project Report 02 weeks before IVth semester exam. The Project work will be of 200 marks. A student will not be given any special permission to leave the department for a long time to do the project as he/she will be missing IVth semester classes. Preferably organizational surveys in the local areas can be done.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
MASTER OF SOCIAL WORK

SEMESTER - I

Paper 1

SOCIAL WORK HISTORY AND IDEOLOGY

Unit I

Meaning, objective, value, field, and scope of social work. Role and function of social work–welfare v/s development orientation. Concept and philosophy of social work.

Unit II

Professional social work – meaning and elements professional code of ethics interface between voluntary and professional social work. Social service, security, policy, and reform tradition in India – ancient period, medieval period, modern period. Social movement – land reform, green revolution, dalit movement, sarvoday movement. Gandhian approach to social work.

Unit III

History of social work – England and India.

Unit IV

Approaches and model of social work – charity approach, welfare approach, system approach, developmental approach, radical approach, ecological approach and integrated approach, right based approach, empowerment approach.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
MASTER OF SOCIAL WORK

SEMESTER - I

Paper 2

HUMAN GROWTH AND DEVELOPMENT

Unit I

Concepts of development- Growth, Maturation, Basic Human Needs; Personality- Definition; Structure, Dynamics & Determinants. Motivation & Behaviour; Stress & Modes of Adaptation, Factors Influencing Personality Development: Heredity Environment and Process of socialization of the child.

Unit II

Theories of Human Development; Freud's Psycho-Sexual Theory; Erickson's Psychosocial Theory, Alfred Adler's Theory, Kurt Lewin, Karl Rogers's theories.

Unit III

Human Growth and Development: Stage I Prenatal Development; Care during Pregnancy and Child Birth – Physical, Psychological and Emotional Aspects of: Infancy Birth and Birth Hazard; Concept of Early Childhood Care and Development (ECCD)- Neonatal Care, Breast Feeding and Supplementary Food, Effect of Malnourishment, Health Care of Infant & Immunization, Early Childhood Stimulation and Deprivation, Effective Parenting and ECCD; Personality Development during Oral, Anal, Oedipal and Latency Stages of Life Cycle.

Unit IV

Human growth and Development: Stage II- Puberty, Adolescence, Adulthood and Middle age, Old age; Physical, Emotional, Social and Intellectual Characteristics and Change during Developmental Stages; Personality Structure (Id, Ego and Super ego); Socio-cultural Factors affecting Development, Stress and Crises, Reaction to stress and crisis; Tasks to be accomplished in each Stage of Development.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
MASTER OF SOCIAL WORK

SEMESTER - I

Paper 3

WORKING WITH INDIVIDUALS

Unit I

Social Casework as a Method of Social Work

Concept and Definitions, Components of casework (Perlman's model) Person- client, significant others and collaterals Problem- need, impaired social functioning Place- agency, objectives, functions, policies and resources. Process- casework intervention

Principles of Social Casework Practice

Begin where the client is. Individualization Purposeful expression of feelings Controlled emotional involvement Acceptance Non-judgemental attitude Client self determination Confidentiality **Concept of - 4P**

Unit II

Tools of Working with Individuals and Families

Intake-record/sheet and the intake interview (client engagement) Casework interview Home visit- collateral contacts. Recording and its types – narrative, process, problem oriented record keeping (PORK) Subjective –objective assessment plan (SOAP), Case worker –client relationship Knowledge of resources (networking) Communication - verbal, non-verbal, eye contact, body language. Case presentation as tool of professional development.

The process of intervention with client system and target system

Study Continuous assessment and analysis Psycho-social diagnosis Intervention Follow-up Termination Case presentation based on field work practice

Essentials of Working with Individuals and Families

Skills for working with individuals and families, Techniques for working with individuals and families, Qualities in the caseworker

Unit III

Models of Casework Practice

Social diagnostic (Richmond), Supportive and modificatory (Hamilton), Problem solving (Perlman), Crisis intervention (Rapp port), Classified treatment method (Floence Hollies), Competence based approach (Elleen Grabrill)

Unit IV

Approaches: functional, behaviour modification and task centered. Psycho-analytical Approach, Problem-Solving Approach, Psycho-social Approach; Crisis Intervention; Team Work Approach; Models of Social Case Work Interventions.

Scope of Casework in Practice

Working with individuals and families in primary and secondary settings, Social casework & counselling –similarities and differences, Limitations of the method



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
MASTER OF SOCIAL WORK

SEMESTER - I

PAPER 4

SOCIAL GROUP WORK: THEORY AND PRACTICE

Unit I

Introduction of Social Group Work Practice: Values and Ethics in Group Work Practice. Social Group Work; Meanings, Characteristics, Type, Significance, Purpose, Principles and Structure.

Unit II

Group Processes: Group Formation Process-Steps and Importance; Worker Skills in Identifying and Understanding these Processes, Group Dynamics: Bond, Sub-group, Leadership, Isolation, guided group interaction, Decision Making, Conflict, Communication, and Relationship & Cohesion. Models and Approaches of social group work.

Unit III

Techniques and Skills in Social Group Work: Program Planning: Concept, Principles, Skills, Techniques for Effective Work/Problem Solving and Role of Social Worker.

Unit IV

Recording and Termination Phase: Recording in Social Group Work Principles, Structure, Type of recording. Evaluation-Type of Evaluation; Need for Termination of Intervention, Types of Termination; Skills required of Social Group Work in this phase.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
MASTER OF SOCIAL WORK

SEMESTER - II
PAPER 1

SOCIAL WORK RESEARCH & STATISTICS

Unit I

Social Research: Meaning, Objectives & Scope, scientific Method: Concept & Characteristics, Distinction between Social Research & Social Work Research, Types of Social Research-Basic, Applied, Action & Evaluation, Steps in Social Work Research.

Unit II

Research Design: Meaning & Types; Hypotheses: Meaning & Types, Source of data Collection; Primary & Secondary- Observation, Interview, Case Study & Survey; Tools of Data Collection; Interview schedule, Questionnaire, Focused Group Discussion & Scales (Bogardus, Likert, Thurston & Sociometric scales), Sampling Techniques; Meaning & Types.

Unit III

Research Report- Contents; Qualities of a good research report, Diagrammatic & Graphic presentation of data (bar chart, pie chart, histogram, polygons, ogive), Application of Computers in Social Work Research.

Unit IV

Use of Statistics in SWR: Concept, Purpose and Scope of Statistics in SWR; Measures of Central Tendency, Mean, Median & Mode; Measures of Dispersion; Range, Standard Deviation, Mean Deviation, Quartile Deviation; Correlation; Karl Person & Spearman's Coefficient.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
MASTER OF SOCIAL WORK

SEMESTER - II
PAPER 2
SOCIAL POLICY PLANNING & WELFARE ADMINISTRATION

Unit I

Social Policy: Concept and Scope; objectives; Sources; approaches and models of social policy. Major Social Welfare Policies: National Policies on Education, Housing, Environment, Disabled and the Displaced Persons.

Unit II

Social Planning: Concept; objectives; scope and limitations of Social Planning. Planning as an Instrument of Social Policy. The Planning Commission of India: its structure & functions.

Unit III

Participants in administration – the community, the board, the chief executive, the staff and the beneficiaries.

Social Welfare Administration: Concept & Scope; Need and objectives. SWA & other concepts: Public Administration, Social Administration and Social Work Administration.

Unit IV

Basic Administration Process: POSDCORB.

Social Welfare Administration in India: At the Central Level: Structure, Functioning, Jurisdiction of the central ministries of Social Justice and Empowerment;



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
MASTER OF SOCIAL WORK

SEMESTER - II
PAPER 3
NGO MANAGEMENT & DISASTER RELIEF SERVICES

Unit I

Need for welfare and developmental organizations and their response to societal needs; civil society: concept, functions and limitations; civil society and welfare state; auspices of social welfare services- Governmental and non- governmental: nature, structure, roles and functions; social welfare services;

Unit II

Registration of non- governmental organizations under relevant laws –Firms and Societies Act, Co-operative Society Act and Charitable Trust Act- salient features, provisions and limitations; registrations, process and procedures, constitutions, rules and regulations, goals; executive boards and committees;

Unit III

Project proposals based on needs and resources; programme management; Financial resource management- sources of finance, fund, budgeting and control; Social auditing, accountability and transparency; understanding conflict, conflict resolution and creating positive climate.

Unit IV

Disaster and Development: Disaster- meaning, disaster and level of development; Classification/Types of disaster: natural disaster-famine, draught, floods, storms, cyclones, earthquakes; manmade disaster-riots, biological warfare, industrial, military insurgency, eviction; Impact of disaster: physical, economical, spatial, psycho-social; Disaster management: pre disaster-prevention, preparation and education; actual disaster short term & long term plan, stress and trauma search, relief, recovery and restoration, resource mobilization; post disaster – rehabilitation and mitigation of negative effects Intervening Parties: government organization, voluntary organizations, local groups, community participation, social workers;



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS
MASTER OF SOCIAL WORK

SEMESTER - II

PAPER 4

WORKING WITH COMMUNITY/ COMMUNITY ORGANIZATION

Unit I

Community: Sociological Concept of Community; Community in a Social Work Perspective. Rural, urban and Tribal community: Form, Features and Issues.
Community Power structure: Concept; Type; Dimensions Relevant to Community Practice.
Community Leadership: Meaning; Role; and Problems of Community Leadership.

Unit II

Community Organization: Meaning, Objectives, Principles and Historical Development.
Process in Community Organization; Community Development: Meaning, Characteristics and Relationship with Community Organization. Programme Development: Process, Strategy and Problems.

Unit III

Approaches, Models and Skills of Community Organization; Role of Community Organizer in Community Setting. Evaluation: Concept, Types, Methods and Barriers in Programme Evaluation.

Unit IV

Social Action: Meaning, Objectives, Principles, Strategies, and Approaches. Role of Social Worker as Social Activist: Campaigning, People's Participation, Negotiating and Legislative Promotion.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
MASTER OF SOCIAL WORK

SEMESTER - III
PAPER 1
INTEGRATED SOCIAL WORK PRACTICE

Unit I

Integrated Social work practice – its concept, meaning & scope. Social work intervention with individuals, groups, family, communities & organizations.

Unit II

Approaches: functional, behaviour modification and task centered. Psycho-analytical Approach, Problem-Solving Approach, Psycho-social Approach; Crisis Intervention; Team Work Approach;

Unit III

Models of Social Case Work Interventions, system approach & environmental approach. Understanding of life, sustaining elements and there interrelationship in a holistic framework.

Unit IV

Process of integrated social work: initial contact, collecting data, assessment, negotiation of contact, problem solving termination and evaluation, (contact phase, contract phase and ending phase).

Social work profession as a single change and as one in the team (inter –professional and intra – professional team work).



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
MASTER OF SOCIAL WORK

SEMESTER III
PAPER 2
SOCIAL DEVELOPMENT

Unit I

Social Development: Definitions of development and social development, current debates on development, goals of development, indicators of development, sustainability of development; characteristics of developing society; interdependence between social development and economic development; stages of development in India after independence;

Unit II

Factors of development: Psychological factors-attitudes, beliefs, stereotypes, leadership, public opinion and communication; Economic factors - capital formation, foreign capital, technology, interdependence between agriculture and industry; Cultural factors- values, cultural diversities, traditional ethos, modernization, secularization and sanskritization;

Unit III

Political factors-constitution, directive principles of state policy, fundamental rights, political parties, government policy and social legislation; Demographic factors; Rural Development: Agrarian and land reforms, green revolutions; Industrial Development, industrialization and urban development; Non-governmental organizations and developmental programmes; Place of social welfare services in socio-economic development; Use of economic indices to measure social welfare programmes; need for developing social indicators and indices; Role of international organizations in socio-economic development;

Unit IV

Approaches to development: Unified, basic needs and holistic approaches; socialistic, capitalistic and mixed economy approaches; Gandhi, Tagore, Vinoba, Nehru and Jai Prakash's view of development; Professional Approach to social development;



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
MASTER OF SOCIAL WORK

SEMESTER - III
PAPER 3

URBAN COMMUNITY PLANNING & DEVELOPMENT

Unit I

Urban Community Development: Concept; Objectives; Historical Background; Importance of Urban Community Planning and Community Participation –Then Importance; Steps Required; Role of Social Worker in Urban Community Development

Unit II

Major agencies of urban development; urban community development project, HUDCO, DUDA, SUDA Slum Clearance Board, Housing Board, and Urban Development Corporation banks, industries, cooperatives, voluntary agencies; problems of coordination of these agencies for effective urban development;

Unit III

Civil society in urban development – agency level and people's level; urban local self government: nagar nigam, nagar mahapalika, nagar palika, town area, notified area, cantonment board – concept, structure, functions and responsibilities;

Unit IV

Legislation relating to urban land (ceiling and regulation); National policy of urbanization and housing; Development Policies and Programmes in India; 74th Constitutional Amendment Act and the Role of Urban Local Bodies; Functions of Government and Non Government Bodies; Role of Voluntary Agencies in Urban Development.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
MASTER OF SOCIAL WORK

SEMESTER - III

PAPER 4

RURAL COMMUNITY PLANNING DEVELOPMENT

Unit I

Rural Community: Concept and Characteristics. Dynamics of Rural Society: Caste, Class and Gender Relations; Major issues of rural community in India: Structural Inequality, Rural Poverty, Livelihood and Food Insecurity, Indebtedness, lack of Basic Services, land Ownership, and Land Alienation.

Unit II

Rural Community Development: Concepts, Objectives and Scope. Models and Approaches to Rural Community Development. Application of social work methods in rural development: Community Based Organizations (CBOs) and their roles in empowering the rural community.

Unit III

Role of NGO's in rural development, Cooperative and cooperation in rural India Programmes. Five Year Plans and Rural Community Development: Programmes and Policies. Application of Participatory Rural Appraisal, PRA.

Unit IV

Concept of Democratic Decentralization, Panchayati Raj Institutions (PRI) in India. Administrative pattern of community development and Panchayat raj system at local, block and district level. Rural Development Agencies: National Institute for Rural Development (NIRD), National Bank for Agriculture and Rural Development (NABARD) Regional Rural Bank (RRB). E-Governance in Rural Development.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
MASTER OF SOCIAL WORK

SEMESTER - III
PAPER 3
INDIAN LABOUR PROBLEM AND LEGISLATION

Unit I

Emergence of industrial working class and its characteristics; labour market-demand and supply, automation and problems in employment; wage determination, minimum, fair and living wages, wage differentials; absenteeism and job turnover; problem of job commitment; housing Problems, indebtedness; alcoholism; industrial health, disease and accidents; condition of work and problem of social security;

Unit II

Problems of unorganized labour, bonded labour and child labour;
Labour welfare meaning, welfare work by state, employers and trade unions; statutory regulation-canteen, creche, safety, etc. their organization and management; non-statutory welfare services- transport, education etc; benefits scholarships, travel allowance, discount on products, share in industry, encashment of leave, advances (loans), long service awards; labour welfare officer-duties, role and status; labour cooperatives; social security-meaning, historical development in India; worker's education.

Unit III

Labour Legislation: Needs, scope, Nature and Principles; Indian Constitution and Labour; The Factories Act, 1948: The Industrial Disputes Act, 1947: Definition; Authorities; Powers and Duties; Procedure; Strike and Lockouts; Lay-Off and Retrenchment. The Trade Union Act, 1926: Registration Process; Rights and liabilities of Registered Trade Unions. Industrial Employment (Standing Orders) Act, 1946: Salient Features. The Contract Labour (Regulation and Abolition) Act, 1970: Salient Features.

Unit IV

Social Security: Concept; Scope and Types. The Workmen's Compensation Act, 1923: Interpretation, Provisions Related to Compensation and Commissioner. The Employees' State Insurance Act, 1948: Authorities, Contributions and Benefits. The Maternity Benefits Act, 1961: Salient Features. Wages and Perks: Concept of Bonus, Gratuity and Provident Fund; The Minimum Wages Act, 1948 – Salient features. The Payments of Wages Act, 1936 – Definition, Deductions and Penalty.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
MASTER OF SOCIAL WORK

SEMESTER - III
PAPER 4
MANAGEMENT OF INDUSTRIAL RELATION

Unit I

Bi-partite approach to settlement of industrial disputes; bi- partite negotiation; collective bargaining- meaning and approaches, distributive and integrative bargaining; Worker's participation in management –meaning, different levels of participation; types of participation – work committee, joint management council,

Unit II

Ethical approach to settlement of industrial disputes- code of discipline, code of conduct; grievance procedure;

Unit III

Tri-partite approach to settlement of industrial disputes: conciliation – meaning, historical perspectives and functioning of conciliation; role of trade unions, state and employers organization in performance of conciliation machinery;

Unit IV

Arbitration – meaning, scope and effectiveness;
Court of Enquiry –meaning, scope and effectiveness;
Adjudication – meaning, machinery-labour court, industrial tribunal and national tribunal;



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS
MASTER OF SOCIAL WORK

SEMESTER - IV

PAPER 1

COUNSELING & SOCIAL WORK PRACTICE

Unit I

Counselling- meaning, definition, goals and objectives; counselling process; stages of counselling; counselling situations: developmental, preventive, facilitative, crisis; general factors and their influences on counselling processes; basic principles of counselling;

Unit II

Individual Counselling: client as a person (client system as a unit), voluntary and non-voluntary, expectations, behaviour, communication- verbal and non-verbal; couple and family counselling: process, advantages;

Unit III

Counselling for groups: process, advantages and disadvantages; crisis counselling with bereavement affecting communities;

Approaches to counselling: person centered, rational emotive, transactional analysis, behavioural approaches, Gestalt, Existential approach, Egan's three stage models, Eclectic model.

Unit IV

Techniques of counselling: initiating contact, intake, rapport, establishing structure, interaction, attending behaviour, observation, responding, rating and its interpretation; Counselling in social work practice; social worker a counsellor



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SEMESTER SYLLABUS
MASTER OF SOCIAL WORK

SEMESTER - IV
PAPER 2
LEGAL SYSTEM IN INDIA

Unit I

Concept of right- civil right, rights of children, woman and ST (Scheduled tribe) & SC (Scheduled Caste) Dynamic of deviant behaviour – its forms, truancy, vagrancy, delinquency, sex- delinquency, whit-crimes etc. Patterns of deviant behaviour.

Unit II

Problem of crime causation difficulties in causation studies; historical theories of crime and delinquency, Function of India – The police, Prosecution Judiciary and correctional setting's(process, function,) special explanation about juvenile aid, woman crime case.

Unit III

Old Penology, types of Punishments. Correctional settings / institution's (open prison, model prison and other experiments) Difference between probation and parole.

Unit IV

Types and Settings of judicial administration. New right of public – RTI (right to information), PIL (public interest litigation and legal aid to marginalized.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
MASTER OF SOCIAL WORK

SEMESTER - IV
PAPER 3
TRIBAL COMMUNITY PLANNING & DEVELOPMENT

Unit I

Tribes: Concept and Characteristics - of Tribes - History of Indian Tribes; Tribes in India. Tribal Social Structure: Socio - Economic conditions; Cultural and Religious Aspects; Status of Women and Children; Marriage: Polygamy, Polyandry and Dormitory Marriage Tribal Leadership.

Unit II

Problems of Tribes: Poverty, Literacy, Exploitation, Atrocities on Tribes-Tribal resettlement and Rehabilitation and its related issues; Social Problems- social exploitation, migration, education, dropouts, Health Problems: Malnutrition, Sickle cell disease, Skin disease, Anaemia, Goitre, Traditional Health Practice and Approaches to Treatment; HIV/AIDS, Health services, drinking water and health, sanitation problem, Economic Problems: Automation, Modern life, Impact of Media, Land, Alienation,

Unit III

Challenges in relation to agriculture, employment, Misappropriation, displacement. Political Problems, Infrastructural Problems- Transport, Communication, Recreational. Women's Problems: Status of women in tribal community, workload and impact on health, educational status, illiteracy, adjustment, malnutrition, early marriage. Challenges related to physical and mental health, Psychological disorders.

Unit IV

Tribal Development Administration: Administrative structure at Central, State and District Level - Hill Development Councils - Role of Tribal Development Agencies - Constitutional Provision for the protection of tribes. Role of NGO's, Tribal development policies and plans in India. Role of Social Workers in Tribal Development. The 73rd and 74th Constitutional amendment: Panchayati Raj and new Political Structure.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SEMESTER SYLLABUS
MASTER OF SOCIAL WORK

SEMESTER - IV
PAPER 3
HUMAN RESOURCE MANAGEMENT & H.R.D PRACTICE

Unit I

Concept and perspectives on human resource Management, nature, feature, objective, scope, challenges of human resource Management.

Unit II

Corporate and perspective on Human resource planning, HR policy

Unit III

Functions of personnel management: recruitment and selection- application blank, psychological tests and interviews; performance appraisal, MBO, promotion, demotion, transfer and termination; grievances and their redressal;
Maintaining discipline, disciplinary procedure, positive aspect of discipline; domestic enquiry, discharge and dismissal, resignation, retirement;

Unit IV

Job analysis, job description, job specification, selection, induction and placement;
Training & Development: establishment of training needs strategies, training inputs, evaluation of training needs, training methodology;

SEMESTER - IV
DISSERTATION / PROJECT WORK



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SYLLABUS (NEW COURSE)

P.G. DIPLOMA IN COMPUTER APPLICATION

YEAR WISE PLAN
PGDCA

S.N.	Subject Name	End Semester Examination Maximum Marks	End Semester Examination Minimum Passing Marks
1.	Fundamentals of Computer and Information Technology	100	40
2.	PC- Packages and Computerized Accounting System	100	40
3.	Data Communication and Computer Network	100	40
4.	Programming using 'C' & C++	100	40
5.	Relational Database Management System (Oracle)	100	40
6.	System Analysis & Design	100	40
7.	PC Package and Tally ERP Lab	50	17
8.	C,C++ and Oracle Lab	50	17
9.	Project	100	40



PAPER-I

FUNDAMENTALS OF COMPUTER & INFORMATION TECHNOLOGY

UNIT- I

Introduction to Computer and Information Technology: Brief history of development of computer & generations of computer, Computer system characteristics. Capabilities and limitations block diagram of computer. Types of computer-Analog, Hybrid, digital, micro, mini, mainframe, super computer. Personal computer, types of PCs desktop, laptop, notebook, palmtop etc. Number system Data representation in computers, Number system of computers binary, octal, hexadecimal, representation & their conversion, Coding system ASCII, BCD, EDCDIC etc.

UNIT- II

INPUT/OUTPUT devices: keyboard, mouse, monitor, trackball, joystick, digitizing table, scanners, digital cameras, MICR, OCR, OMR, Bar-code reader, Voice recognition, light pen, touch screen, devices, printer, plotter.

UNIT- III

Storage device: Data storage and retrieval methods-sequential, direct and index sequential- various storage devices-magnetic tape, magnetic disks, cartridge tape, data drives hard disk drives, floppy disks, optical disks-CD, VCD, CDR, CDRW, DVD.

UNIT- IV

Computer software: types of software, system software, application software, operating system, utility program, assemblers, compilers and interpreter. Operating system functions, Types batch, single user, multi user, multiprogramming, multiprocessing, Programming languages, machine, assembly, high level, 4GL, their merits and demerits. Computer virus –types of virus, virus detection & prevention virus on network.

UNIT- V

Data Communication & networks: analog and digital signals, modulations, amplitude modular (am), frequency modulation (fm), phase modulation (pm), communication process, direction of transmission flow, simplex, half duplex, full duplex. Types of network LAN, WAN, MAN etc, Topologies of LAN ring, bus star, mesh and tree topologies, communication protocols TCP/IP protocol suit. Communication channels media twisted, coaxial fiber optic, serial and parallel communication, Network operating system (NOS), bridges, hub, routers, repeater and gateways. Modem working and characteristics. Types of connections- dialup leased lines, ISDN, broadband.

Text & Reference Books:

01. Computer fundamentals, P.K. Sinha, BPB
02. Computer today by S.K. Basandra Galgotia Publications.
03. Fundamentals of information by Axexos Leon & Mathews Leon, Vikas Publishing House, New Delhi



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SYLLABUS (NEW COURSE)

P.G. DIPLOMA IN COMPUTER APPLICATION

PAPER-II

PC PACKAGES & COMPUTERIZED ACCOUNTING SYSTEM

UNIT- I

Fundamental of DOS & Windows: Fundamental of DOS booting process, internal and external commands, creating and executing batch files and directories creating text files. Introduction to windows features, various versions of windows, origin of windows parts of windows screen types and anatomy of windows using.

UNIT- II

Introduction to word processing (MS-word): Advantages of word processing, editing a file using paragraphs, bullets, indentation, ect. Formatting features, printing the documents, it includes paper-size, margins, header and footer, page no., using macros. Advance word processing, header and footers. Finding text, mail merge and other application, mathematical calculations, table handing.

UNIT- III

Introduction to spread sheet (MS-Excel): Definition and advantages of electronic worksheet, working of spread sheet, range and related operations. Setting saving and retrieving work sheet file, inserting deleting coping & moving of data cells, inserting and deleting rows & columns, protecting cell printing a worksheet, erasing a worksheet, graphs, creation, types of graphs creating a chart sheet 3D column charts, moving and changing the size of chart, printing the chart.

UNIT- IV

Introduction to Powerpoint (MS- Powerpoint): Creating a presentation, inserting/deleting slides, different slide views, editing slides,. Slide transition & editing special effects inserting sound, picture, chart, organization chart.

UNIT- V

Accounting software Tally ERP 9: Basic principles of double entry accounting system, creating new company security controls, groups, ledger, voucher type, modifying, new company, voucher entry, generating profit & loss account, trial balance and balance sheet, backup & restore.

Text & Reference Books:

01. Comdex Computer Course Kit (Windows 7 with office 2010), Gupta vikas, Dreamtech Publication.
02. Mastering MS Office 2000, Professional Edition by Courter, BPB Publication.
03. MS Office 2000 Training Guide by Maria, BPB Publication.
04. PC Software, Ravi Taxalli, BPB
05. Computer Fundamental by P.K. Sinha
06. Financial Accounting with Tally 9.001 edition by Vikas Gupta.
07. Mastering Tally ... ERP 9 By A.K. Nandhani.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
P.G. DIPLOMA IN COMPUTER APPLICATION

PAPER-III
DATA COMMUNICATION & COMPUTER NETWORK

UNIT- I

Introduction to Data Communication– Network models, protocols and architecture, standards organizations, line configuration, topology, transmission mode, classification of networks, OSI reference model, TCP/IP model.

UNIT- II

Analog and digital signals, Data encoding, parallel and serial transmission, modems, transmission media: guided media, unguided media, transmission impairment, performance, Synchronous and asynchronous transmission.

UNIT- III

Multiplexing, LLC, error detection and correction, flow control, HDLC, LANs- applications, architecture, Ethernet, 802.3 LANs, token ring, FDDI, IEEE 802.6, circuit switching, packet switching, message switching, connection oriented and connectionless services.

UNIT- IV

Principles of internetworking– connection– oriented, connectionless, Routing concepts, routing algorithms– distance-vector routing, link state routing, shortest path routing. Congestion control, QOS, internetworking, network devices.

UNIT- V

Network security requirements and attacks, public key and private key encryption and digital signatures, digital certificate, firewalls, IDS (Intrusion Detection System)

Text & Reference Books:

01. Computer networks– A.S. Tanenbaum. PHI
02. Data communication and networking – Behrouz A. Forouzan. TMH



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
P.G. DIPLOMA IN COMPUTER APPLICATION

PAPER-IV
SYSTEM ANALYSIS AND DESIGN

UNIT- I

The system concept: characteristics, elements and types of a system, the system development life cycle, considerations, for candidate systems prototyping. The role of system analyst.

UNIT- II

System planning and initial investigation: Information Gathering, information gathering tools. Structured analysis, the tools of structured analysis (DFD, Data Dictionary, Decision tree and Pseudo codes Decision Tables), PROS and CONS of each tool, system performance definition description of outputs, feasibility study. Cost/ Benefit analysis, Data analysis, Cost/ Benefit analysis, the system proposal.

UNIT- III

Stages of system design: Design methodologies, development activities, input design, output design forms design, types of forms, basics of form design layout considerations and forms control.

UNIT- IV

File structure: File organization, objectives of database, data structure, system testing and quality assurance, why system testing, what do we test for, the test plan quality assurance, trends in testing, role of data processing auditor, training and documentation.

UNIT- V

Implementing and software maintenance: conversion combating resistance to change, post implementation review, software maintenance, hardware/software selection and the computer contract, suppliers, procedure for hardware/software selection, financial considerations in selection, the computer contract system security disaster recovery planning.

Text & Reference Books:

01. System analysis and design, Elias M. Awad, Galgotia Publication (P) Ltd.
02. System analysis and design, International Ed. Perry Edwards, McGraw Hill Pub.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)
SYLLABUS (NEW COURSE)
P.G. DIPLOMA IN COMPUTER APPLICATION

PAPER-V
PROGRAMMING IN C & C++

UNIT- I

Introduction to “C” Language: Fundamentals, simple I/O statements, reading and writing, data types constants, variable, operators & expressions, library function, control statements, if-else, while, do-while, goto, for statements switch, break, looping statements, functions recursion, arrays, multidimensional arrays, strings & pointers.

UNIT- II

Programming in C++, functions, class, object, constructor and destructor: Call by reference, call by value, return by reference, inline function, constant argument, function overloading, static member function, static data member,. Classes: implementing class, classes and members, accessing class members, implementing class methods, array of object, friend function. Constructor & destructors: parameterized constructor, multiple constructor, constructor with default argument, copy constructor, destructor.

UNIT- III

Operator overloading & type casting: Operator overloading, unary operator overloading, binary operator overloading, manipulates string using operator overloading, type conversions: basic to class, class to basic, class to class.

UNIT- IV

Inheritance, virtual function: single inheritance, multilevel inheritance, multiple inheritance, hybrid inheritance, hierarchical inheritance, virtual base class, abstract class.

UNIT-V

Pointer & File: Pointer to object, this pointer, virtual function and pure virtual function. File: opening and close file, detecting end of the file

Text Books:

01. Let us C by Yaswant Kanetkar BPB
02. Object oriented Programming with C++, E.Blagurusamy, Tata mc Graw-Hill
03. C++ Complete reference, Herbert Schildt, TMH.
04. ANSI C programming, E.Blagurusamy, TMH



PAPER-VI

RELATIONAL DATABASE MANAGEMENT SYSTEM (ORACLE)

UNIT- I

Overview of Database Management: Data, information, data independence, database administration roles, DBMS architecture, different kinds of DBMS users importance of data dictionary, contents of data dictionary, types of database languages. Data models: network, hierarchical, relational. Introduction to distributed database, client/server databases, object-relational databases, introduction to ODBC concept

UNIT- II

Relational Model: Entity relationship model as a tool for conceptual design-entities attributes and relationships. ER diagrams; concept of keys: candidate key, primary key, alternate key, foreign key; strong and weak entities, case studies of ER modeling generalization; specialization and aggregation, Converting an ER model into relational schema. Extended ER features, introduction to UML, Representation in UML diagram.

UNIT- III

Structured Query Language (SQL): Relational Algebra: select, project, cross product different types of joins (inner join, outer joins, self join); set operations, tuple relational calculus, domain relational calculus, simple and complex queries using relational algebra, stand alone and embedded query languages, introduction to SQL constructs (SELECT...FORM, WHERE... GROUP BY... HAVING ... ORDERBY...), INSERT, DELETE, UPDATE, VIEW definition and use, temporary tables, nested queries, and correlated nested queries, integrity constrains: Not null, unique, check, primary key, foreign key, reference, triggers.

UNIT- IV

Relational database design: Normalization concept in logical model; pitfalls in database design, update anomalies: functional dependencies join dependencies, Normal forms (1NF, 2NF, 3NF). Boyce code normal form, decomposition, multi-valued dependencies, 4NF, 5NF. Issues in physical design; concepts of indexes, file organization for relational tables, de-normalization, clustering of tables, clustering indexes.

UNIT- V

Introduction to Query processing and protection the database: parsing, translation, optimization, evaluation and overview of query processing. Protecting the database integrity, security and recovery, Domain constraints, referential integrity, assertion, triggers, security & authorization in SQL

Text & Reference Books:

01. Database system concept, H. Korth and A. Silberschatz, TMH
02. Data Base Management System, C.J. Date, Narosha Publication.
03. An Introduction to database systems – Bipin Desai, Galgotia Publication.
04. SQL, PL/SQL Evan Bayross (2nd edition) BPB publications.



बिलासपुर विश्वविद्यालय, बिलासपुर (छत्तीसगढ़)

SYLLABUS (NEW COURSE)

P.G. DIPLOMA IN COMPUTER APPLICATION

PC Package & Tally ERP Lab

Note: Practical should be as per syllabus of theoretical papers.

C, C++ & Oracle Lab

Note: Practical should be as per syllabus of theoretical papers.

PROJECT

Note:

01. It is compulsory, that students would have group of maximum of two students and project should be done under Government sectors/ Public Sector/ Pvt. Limited S/W Company/ Software Technology park of India/ ISO 9001 certified company etc.
02. The students should not make any project under local or private institutions.
03. The students should make project themselves and project will not be copy of other project.

Steps for Live Project

01. Getting customer's requirements
02. Designs, database and business logics.
03. Developing software application project.
04. Testing and implementing the project.
05. Troubleshooting the project application after implementation.

The break-up of marks for Practical will be as under :

Sr. No.	Argument	Maximum Marks	Minimum Passing Marks
1.	Lab Record	10	
2.	Viva-voce	20	
3.	Program Development & Execution	20	
Total Marks		50	17

The break-up of marks for Practical will be as under :

Sr. No.	Argument	Maximum Marks	Minimum Passing Marks
1.	Project Report	25	
2.	Viva-voce/ Presentation	25	
3.	Project Execution	50	
Total Marks		100	40