



Govt. Madan Lal Shukla College, Seepat (C.G.)

Welcome

Honorable NAAC Peer Team

DEPARTMENT OF PHYSICS

06th & 07th April 2022

DEPARTMENT: AT A GLANCE

- **The college was established in 12 Aug. 1986.**
- **The Department of Physics was started in 2012.**

FACULTY PROFILE

Post sanctioned: 01 (Assistant Professor)

Present teaching Staff :-

Dr. Shweta Jaiswal (H.O.D.)

Academic support staff (Technical staff) :-

Post sanctioned for lab technician: 01

Present lab technician: Mr. P. K. Bele

Post sanctioned for lab Attendant: 01

Present lab technician: Mr. B. L. Saw

Vision of Department

To build a scientific society to encourage
Logical thinking

Mission of Department

To awaken the young mind of the student
And to explore their knowledge in
theoretical and applied physics.

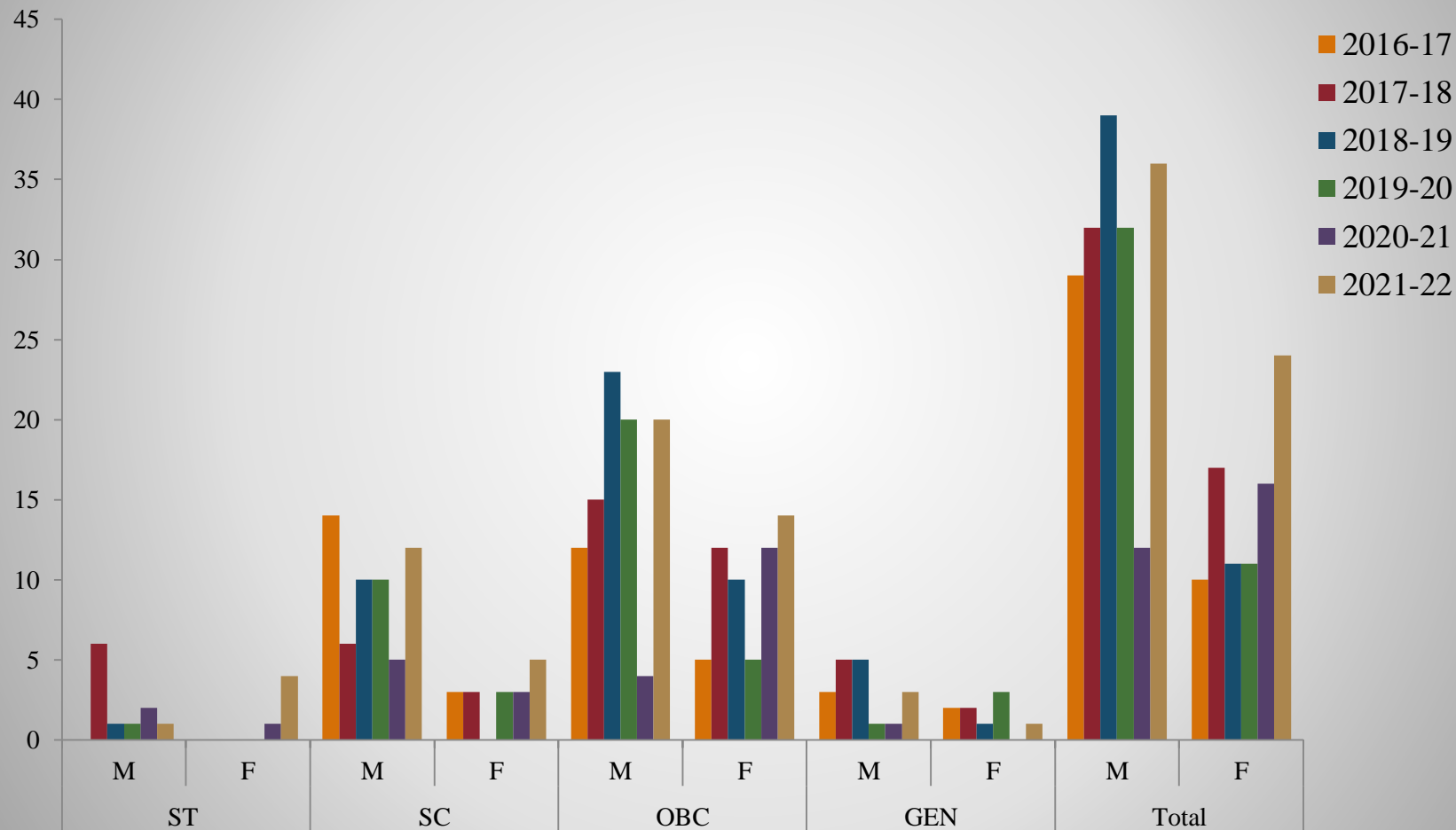
Admission Details - B Sc Part I (Physics)

Govt. Madan Lal Shukla College, Seepat (C. G.)

Admission Details - B Sc Part I (Maths Group)

Years	ST		SC		OBC		GEN		Total		Grand Total
	M	F	M	F	M	F	M	F	M	F	
2016-17	0	0	14	3	12	5	3	2	29	10	39
2017-18	6	0	6	3	15	12	5	2	32	17	49
2018-19	1	0	10	0	23	10	5	1	39	11	50
2019-20	1	0	10	3	20	5	1	3	32	11	43
2020-21	2	1	5	3	4	12	1	0	12	16	28
2021-22	1	4	12	5	20	14	3	1	36	24	60

Admission Details - B Sc Part I (Physics)



Course curriculum

B.Sc. (Physics)

Class	Papers	Titles	Theory marks	Practical marks	Internal marks	Total
B.Sc.-I	Paper 1	Mechanics, oscillations and properties of matter	50	50	10%	150
	Paper 2	Electricity magnetism and electromagnetic theory	50			
B.Sc.-II	Paper 1	Thermodynamics, kinetic theory and statical physics	50	50	10%	150
	Paper 2	Waves, acoustics and optics	50			
B.Sc.-III	Paper 1	Relativity, quantum mechanics, atomic molecular and nuclear physics	50	50	10%	150
	Paper 2	Solid state physics, solid state devices and electronics	50			

TEACHING METHODS (TRADITIONAL)

- **With the help of black board, Chalk and duster**
- **Lectures**
- **Test and error explanation.**
- **Seminar**
- **Poster, Charts**



Lecture through model Presentation

INNOVATION IN TEACHING LEARNING

- Online Teaching Learning by using Google meet platform.
- Online Printed Materials
- You-tube videos & Video Lectures.
- Power point presentation.

YouTube videos prepare and uploaded in cgschool.com

S.No.	Class	Topic	Youtube link
1.	B.Sc. II	Ruby Laser	https://youtu.be/WpQe3RJtRZo
2.	B.Sc. III	Feedback Amplifier	https://youtu.be/G41laRliKRc
3.	B.Sc. II	Clasious Clapeyron Equation	https://youtu.be/dbqu2GBPjLO

LIST OF EQUIPMENTS OF PHYSICS LAB

- **Energy band gap of semiconductor diode.**
- **Computer-04**
- **Logic training board.**
- **Transistor characteristic curve board.**
- **Verification of Norton's and Thevenin's theorem.**
- **Field effect transistor (FET) characteristic curve.**
- **Light emitting diode (LED) characteristic curve.**



LIST OF EQUIPMENTS OF PHYSICS LAB

- Stefan's constant determination equipment.
- Plank's constant determination equipment.
- Fly wheel, Magnetic war.
- Verification of Stoke's theorem.
- Spectrometers, Newton's ring .
- Torsional pendulum, Compound pendulum.
- Inertia table, Lee disc apparatus.
- Grating, prism, venires calipers, Screw Gauge, Thermometer, Stop watches.





Students Performing Practicals

Assessment of Learning Level: Slow & Advance Learners

- Result of previous class
- Attendance in class room
- Activities in class room
- Marks in internal exam



Internal Assessment

Activities done for slow learners

- Extra attention during the classes to ensure the catchup with fellow students
- Providing them with notes, study materials and books
- After the completions of every topic revision are made
- Give personal attention

Activities done for advance learners

- Motivating them to do class presentations and explain to classmates.
- Encouraging them and provide extra care to obtain university rank.
- Guide and counsel them to take-up competitive exam.
- Encouraged to participate in various activities in college.

B.sc (Physics) Program Outcomes

Understand the basic concepts of methodology of science and the fundamentals of mechanics, properties and electrodynamics

Understand the theoretical basics of all branches of physics.

Students learn to tolerate diverse ideas and different point of views.

Become empowered to face the challenges of the changing universe.

RESULT ANALYSIS

B. Sc. Part III

YEAR	B. Sc. Part III					
	TOTAL REGISTERED	ABSENT	PRESENT	PASS	FAIL	PASS %
2016-17	12	1	11	10	1	90.91
2017-18	21	0	21	21	0	100
2018-19	14	0	14	14	0	100
2019-20	28	0	28	28	0	100
2020-21	38	0	38	38	0	100

RESULT ANALYSIS

YEAR	B. Sc. Part II					
	TOTAL REGISTERED	ABSENT	PRESENT	PASS	FAIL	PASS %
2016-17	22	1	21	20	1	95.24
2017-18	23	0	23	17	6	73.91
2018-19	22	0	22	18	4	81.82
2019-20	32	0	32	32	0	100
2020-21	40	0	40	40	0	100

RESULT ANALYSIS

YEAR	B. Sc. Part I					
	TOTAL REGISTERED	ABSENT	PRESENT	PASS	FAIL	PASS %
2016-17	33	4	29	22	7	75.86
2017-18	47	4	43	29	14	67.44
2018-19	45	0	45	38	7	84.44
2019-20	40	0	40	40	0	100
2020-21	27	0	27	27	0	100

Additional works

Dr. Shweta jaiswal :-

- | | |
|--------------------------|---------------|
| • Student Feedback | - Convenor |
| • Parent Teacher Meeting | - Convenor |
| • Value added course | - Co Convenor |
| • Stud.online attendance | - Member |
| • Gender senstization | - Member |
| • Time table | - Member |
| • internal exam | - Member |

Additional works Out Side Of College

Dr. Shweta jaiswal :-

**Online Divisional Level Classes Govt.
E.Raghvendra Rao (Auto.) P.G. Collage
Bilaspur (C.G.)**

SWOC Analysis

Strengths

- Availability of ICT.
- Effective teaching learning process.
- Number of pass outs is progressive.
- Sincere and laborious students.

SWOC Analysis

Weakness

- High teacher student ratio.
- English communication skill among the student is poor.
- As the college is in rural area transporting facilities for the student is comparatively low.

SWOC Analysis

Opportunities

- Providing platform to learn Physics efficiently.
- Providing good learning environment.
- Promoting teacher student interaction.
- Encourage students for curiosity.

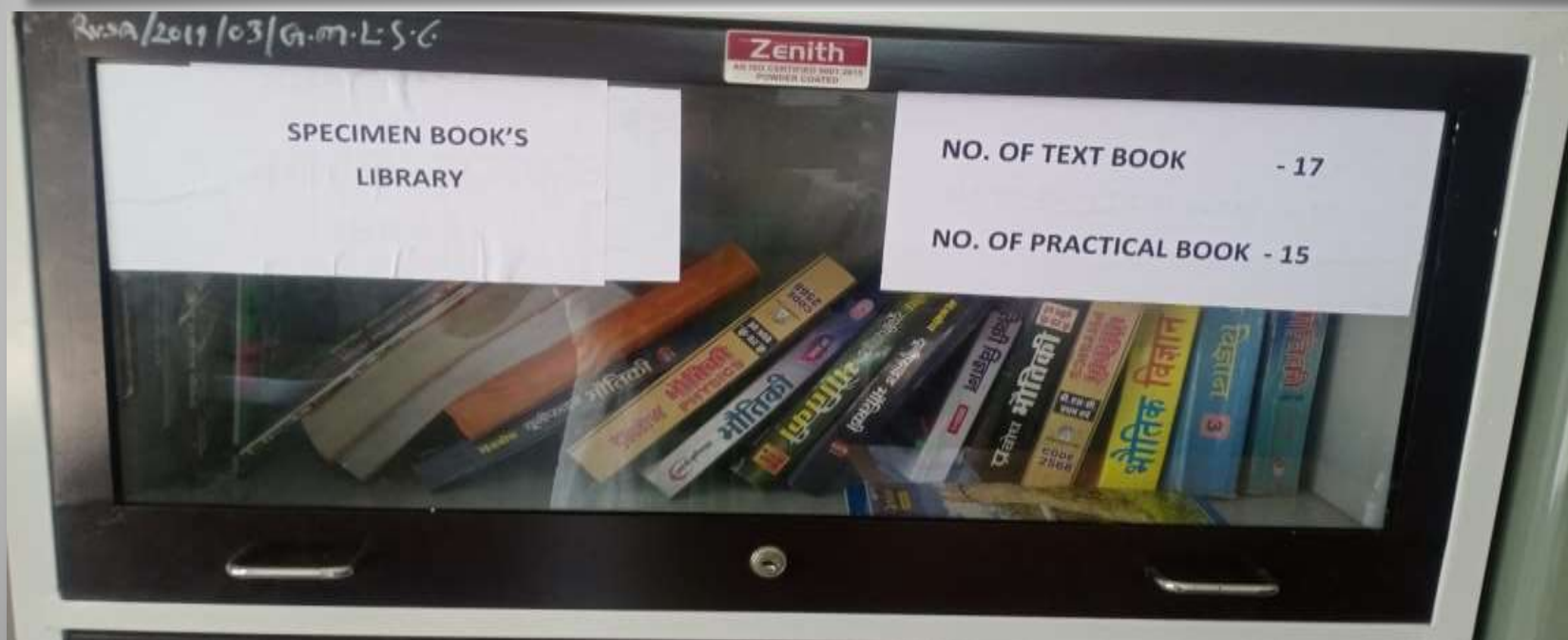
SWOC Analysis

Challenges

- To establish the department at national and International level.
- Receive grants to start research activities.
- It is a great challenge to run department single handly.

Innovations

A Departmental Library made by specimen books.



Innovations

A very low cost instruments made by students as their project work.




Student gave seminars



Future plan

- To introduce post graduate course in the department.
- To organize seminar and workshop in the department.

Faculty profile

Name	Qualification	Designation	Specialization	Number of years of teaching Experience
 Dr. Shweta Jaiswal	M.Sc M.Phil P.hD	Asst. professor	Electronics	10

Book Publication- "microwave remote sensing dielectric Behavior of soil and utilisation in agriculture
ISBN No-9789390833856

About the Authors



Dr. Lakhapati Patel is the Assistant Professor & Head in the Department of Physics, Govt. K.L. Arts & Commerce College Bagbahara, Mahasamund, Chhattisgarh. He has fifteen years teaching experience. He has responsibility as Coordinator- IQAC, ASU, CGC. He is member of IAPT, ISRS, VIBHA, BSM. He has published several research papers in International and National journals. His research interest is Microwave Remote Sensing Dielectric Behaviour of Soil. He has participated more than 25 Conferences, Seminars, Workshops, Symposium in all over the



Dr. Shweta Jaiswal is the Assistant Professor & Head in the Department of Physics, Govt. M.L.S College Seepat, Bilaspur Chhattisgarh. She has ten years teaching experience. She has responsibility as Coordinator- Student and Staff Feedback Committee. She is member of IAPT, VIBHA, BSM. She has published several research papers in International and National journals. Her research interest is Microwave Remote Sensing Dielectric Behaviour of Soil. She has participated more than 25 Conferences, Seminars, Workshops, Symposium in all over the country.

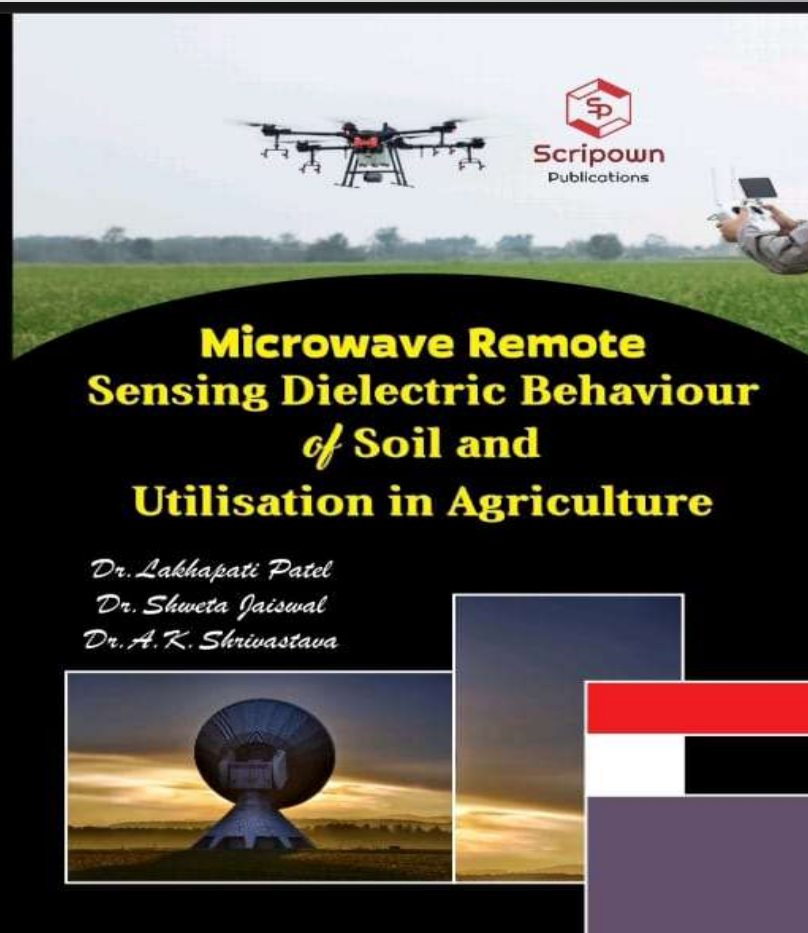


Dr. A.K. Shrivastava, is a well known author as well as educationist. He worked as a lecturer in the CSJM Kanpur University Kanpur and CSVTU Bhilai. He has a vast teaching experience. He guided many M.Phil and Ph.D. scholars. He has published more than 90 research papers in International and National journals. He has more than twenty five years teaching experience. His research interest is Microwave Remote Sensing Dielectric Behaviour of Soil. He has participated more than 100 Conferences, Seminars, Workshops, Symposium in all over the country. He is also a life member professional bodies at national & international level viz :ISRS, IScC, ASI, LSI, PSSI, ISTAM, IAPS, IAPT, ISTE, BARC-HVSP, ISMAMS, BSM, VIBHA, CVM, etc. He is an honorary consultant in the area of Science, Research. He has invited as a key note speaker in several Indian University. He has worked as a Principal and Dean, Faculty of Sciences and Engineering. He has been awarded Global Award-2019, Manav Gaurav Samman in the field of Research and Education, certificate of recognition in excellence in special needs education, best Research Motivator, Prayaran Mitra etc. He is member of national and international Journal's editorial and reviewer's board. He has worked for society as well as humanity in the form of Eye Donation, Blood Donation, Labour Donation. Presently he is Professor & Head, Department of Physics, Dr. C.V. Raman University Kota, Bilaspur, Chhattisgarh and also Head Raman Centre for Science Communication. He is the Secretary of Indian Association of Physics teachers, Chhattisgarh, RC-10.

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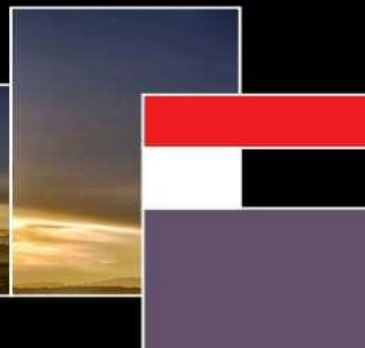


Microwave Remote Sensing Dielectric Behaviour of Soil and Utilisation in Agriculture

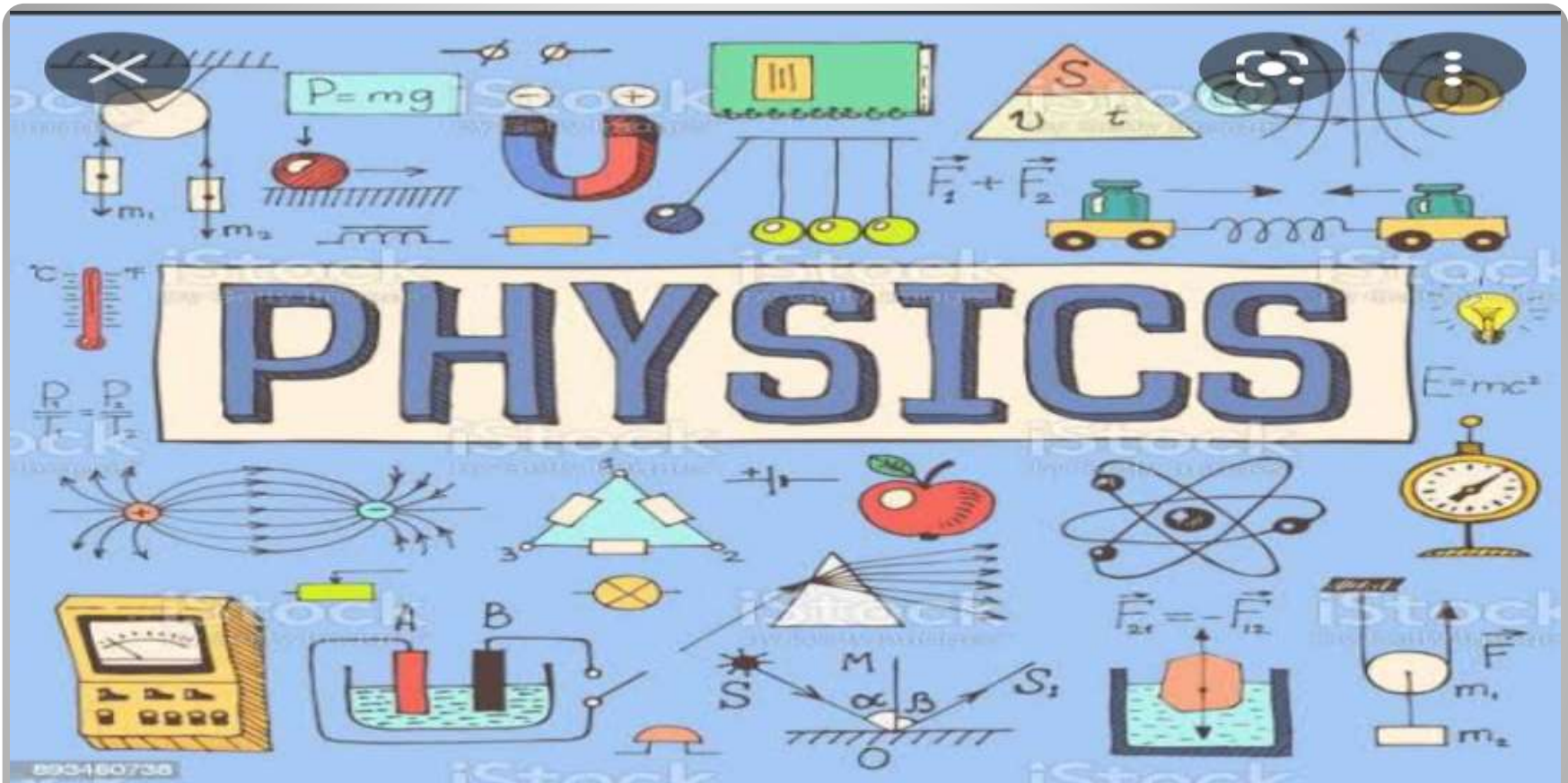


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Thank You