



Pimpri Chinchwad Education Trust's

**S.B.Patil College Of Science and Commerce**

Sr. no. 110, Gate No 1, Ravet, Pune- 412101

[www.sbpatilcollege.com](http://www.sbpatilcollege.com), [email-sbp.science@gmail.com](mailto:email-sbp.science@gmail.com)

UDISE NO: 27252001412      College Index No : J.11.16.066



ACA/DI/15	<b>Teaching Plan</b>	Academic
Rev:00		Year 2023-
		24
Date:05/09/2023		

STREAM: SCIENCE

SUBJECT: PHYSICS 054

STANDARD: XI

PHYSICS DEPARTMENT

Chapter No.	Topic	No.	Sub Topic	Date of	Date of	Media/ Teaching Aid
1	Units And Measurement	10	Introduction, System of Units, Conventions of SI units	10-Aug-23	11-Aug-23	White Board, Marker
			Measurements of length, Measurement of Mass	12-Aug-23	14-Aug-23	White Board, Marker
			Use of Dimensional Analysis and its Limitations	16-Aug-23	16-Aug-23	White Board, Marker
			Accuracy, Precision and Uncertainty in measurement, Estimation of Errors	17-Aug-23	17-Aug-23	White Board, Marker
			Combination of Errors, Significant Figures	18-Aug-23	18-Aug-23	White Board, Marker
			Numericals	21-Aug-23	21-Aug-23	White Board, Marker
			Numericals	22-Aug-23	22-Aug-23	White Board, Marker
2	Mathematical	5	Introduction, Vector Analysis, Vector Operations.	20-Oct-23	22-Oct-23	White Board, Marker

	<b>Methods</b>					
			Triangle law of vector addition, Law of Parallelogram, Resolution of Vectors	22-Oct-23	23-Oct-23	White Board, Marker
			Scalar Product and Vector Product	23-Aug-23	26-Aug-23	White Board, Marker
			Introduction to Calculus	28-Aug-23	31-Aug-23	White Board, Marker
			Numericals + Revision	1-Sep-23	6-Sep-23	White Board, Marker
			Numericals	7-Sep-23	12-Sep-23	White Board, Marker
3	<b>Motion in a Plane</b>	8	Introduction, Rectilinear Motion, Graphical Study of motion	18-Sep-23	20-Sep-23	White Board, Marker
			Equation of motion for Uniform acceleration, Average and instantaneous velocity	21-Sep-23	22-Sep-23	White Board, Marker
			Average and instantaneous acceleration, Relative Velocity, Projectile Motion	23-Sep-23	25-Sep-23	White Board, Marker
			Equation of motion for a projectile, UCM, Expression of Centripetal acceleration	26-Sep-23	27-Sep-23	White Board, Marker
			Conical Pendulum, Numericals	29-Sep-23	29-Sep-23	Simple Pendulum
			Numericals + Revision	30-Sep-23	30-Sep-23	White Board, Marker
4	<b>Laws of Motion</b>	9	Introduction, Aristotle Fallacy, Newton's laws of motion and its importance	3-Oct-23	3-Oct-23	White Board, Marker
			Intertial and Non Inertial Frames of references, Types of force,	4-Oct-23	4-Oct-23	White Board, Marker
			Work Energy Theorem, Work done by a variable force, Principle of conservation of linear momentum	5-Oct-23	5-Oct-23	White Board, Marker
			Collisions, Coefficient of Restitution, Expression for final velocity after head on collision	9-Oct-23	6-Oct-23	White Board, Marker

			Expression for final velocity after elastic collision,	10-Oct-23	10-Oct-23	White Board, Marker
			Impulse of Force, Torque, Couple and its torque	11-Oct-23	11-Oct-23	White Board, Marker
			Centre of mass, Velocity and acceleration of centre	12-Oct-23	12-Oct-23	White Board, Marker
			Numericals	13-Oct-23	13-Oct-23	White Board, Marker
			Numericals + Revision	14-Oct-23	14-Oct-23	White Board, Marker
5	<b>Gravitation</b>	7	Introduction, Kepler's laws, Universal law of Gravitation	16-Oct-23	16-Oct-23	PPT, White Board,Marker
			Measurement of G, Acceleration due to gravity	17-Oct-23	17-Oct-23	White Board, Marker
			Variation of g due to altitude, depth and latitude	18-Oct-23	19-Oct-23	White Board, Marker
			Gravitational Potential Enery and its Expression,	20-Oct-23	20-Oct-23	White Board, Marker
			Projection of Satellites, Earth satellites,	20-Oct-23	20-Oct-23	PPT, White Board,Marker
			Time Period, Binding Energy of satellite	23-Oct-23	23-Oct-23	PPT, White Board,Marker
			Numericals	23-Oct-23	25-Oct-23	White Board, Marker
			Numericals + Revision			White Board, Marker
6	<b>Mechanical Properties of Solids</b>	7	Introduction, Elastic Behaviour, Stress and strain	26-Oct-23	26-Oct-23	PPT, White Board,Marker
			Hooke's law, Elastic Modulus, Strain Energy	27-Oct-23	27-Oct-23	PPT, White Board,Marker
			Friction in Solids, Laws of Kinetic Friction	28-Oct-23	28-Oct-23	PPT, White Board,Marker
			Numericals	30-Oct-23	30-Oct-23	White Board, Marker
			Numericals+ Revision	30-Oct-23	30-Oct-23	White Board, Marker

7	<b>Thermal Properties of Matter</b>	5	Introduction, Temperature and Heat,	20-Nov-23	20-Nov-23	White Board, Marker
			Ideal gas Equation, Thermal Expansion, Areal Expansion	21-Nov-23	21-Nov-23	White Board, Marker
			Relation Between Coefficient of expansion	22-Nov-23	23-Nov-23	White Board, Marker
			Specific Heat capacity, Heat Equation, Calorimetry	24-Nov-23	25-Nov-23	White Board, Marker
			Sublimation, Latent Heat, Conduction	27-Nov-23	27-Nov-23	PPT, White Board, Marker
			Convection, Thermal Resistance, Applications of Convection	28-Nov-23	28-Nov-23	PPT, White Board, Marker
			Radiation + Numericals	29-Nov-23	29-Nov-23	White Board
8	<b>Sound</b>	5	Introduction, Types of waves, Transverse and longitudinal waves	1-Dec-23	1-Dec-23	PPT, White Board, Marker
			Speed of sound, Laplace correction, Factors affecting speed of sound	4-Dec-23	5-Dec-23	PPT, White Board, Marker
			Principle of Superposition of Waves, Echo, Reverberation	6-Dec-23	7-Dec-23	PPT, White Board, Marker
			Doppler's effect, its properties	8-Dec-23	8-Dec-23	PPT, White Board, Marker
			Numericals	11-Dec-23	11-Dec-23	White Board, Marker
			Numericals + Revision	12-Dec-23	14-Dec-23	White Board, Marker
9	<b>Optics</b>	18	Introduction, Ray Optics, Sign Conventions,	15-Dec-23	15-Dec-23	PPT, White Board, Marker

			Reflection from curved surface, Total Internal Reflection	18-Dec-23	20-Dec-23	PPT, White Board, Marker
			Applications of total internal reflection, Refraction at a spherical surface and lenses	21-Dec-23	22-Dec-23	PPT, White Board, Marker
			Lens Maker's Formula, Dispersion	23-Dec-26	26-Dec-23	White Board, Marker
			Defects of lenses, Optical Instruments	27-Dec-23	27-Dec-23	White Board, Marker
			Compound Microscope	28-Dec-23	28-Dec-23	PPT, White Board, Marker
			Numericals	29-Dec-23	29-Dec-23	White Board, Marker
			Numericals	30-Dec-23	30-Dec-23	White Board, Marker
10	<b>Electrostatics</b>	<b>8</b>	Numericals + Revision	1-Jan-24	2-Jan-24	White Board, Marker
			Introduction, Basic Properties of electric charges, Quantization of charges	3-Jan-24	3-Jan-24	White Board, Marker
			Forces between charges, Coulomb's law, Defnition of unit charges	4-Jan-24	5-Jan-24	White Board, Marker
			Coulomb's law in vector form, Electric Field and Electric Field intensity	8-Jan-24	9-Jan-24	White Board, Marker
			Electric lines of forces, Electric flux, Gauss Law	10-Jan-24	11-Jan-24	White Board, Marker
			Electric Dipole, Couple acting on electric dipole	12-Jan-24	13-Jan-24	White Board, Marker
			Charge Distribution, Numericals	16-Jan-24	17-Jan-24	White Board, Marker

			Numericals + Revision	18-Jan-24	20-Jan-24	White Board, Marker
11	<b>Electric Current through Conductors</b>	8	Introduction, Flow of current, Ohm's law- origin and its limitations	29-Jan-02	30-Jan-02	PPT, White Board, Marker
			Electrical energy and Power, Resistors, Rheostat	31-Jan-24	1-Feb-24	White Board, Marker
			Electromotive force, Types of cells	2-Feb-24	2-Feb-24	White Board, Marker
			Numericals	5-Feb-24	5-Feb-24	White Board, Marker
			Numericals + Revision	6-Feb-24	6-Feb-24	White Board, Marker
12       13	<b>Magnetism</b>	5	Introduction, Magnetic lines of forces, Bar magnet	8/Feb/24	9-Feb-24	Bar Magnet, Iron Fillings
			Magnetic Field due to bar magnet, Gauss's law of magnetism	10-Feb-24	12-Feb-24	White Board, Marker
			Earth's magnetism	13/Feb/24	14/Feb/24	White Board, Marker
			Magnetic maps of earth + Numericals	15/Feb/24	15/Feb/24	PPT, White Board, Marker
			Numericals+ Revision	16/Feb/24	20/Feb/24	White Board, Marker
	<b>Electromagnetic Waves and Communication Systems</b>	7	Introduction, EM Waves and their characteristics	21/Feb/24	22/Feb/24	PPT, White Board, Marker
			Electromagnetic Spectrum	23/Feb/24	24/Feb/24	PPT, White Board, Marker
			Wave Propagation and its types, Modulation	26/Feb/24	27/Feb/24	PPT, White Board, Marker
			Numericals	29/Feb/24	29/Feb/24	White Board, Marker

			Numericals + Revision	1/Mar/24	1/Mar/24	White Board, Marker
--	--	--	-----------------------	----------	----------	---------------------

14	Semiconductors	9	Introduction, Electrical conduction in solids, Band theory	4/Mar/24	4/Mar/24	White Board, Marker
			Semiconductors and its types	5/Mar/24	5/Mar/24	White Board, Marker
			p-n junction - forward and reversed biased	6/Mar/24	6/Mar/24	White Board, Marker
			Depletion region and its features	7/Mar/24	7/Mar/24	White Board, Marker
			Working of pn junction diode forward and reversed biased	9/Mar/24	9/Mar/24	White Board, Marker
			Applications of pn junction diode	11/Mar/24	11/Mar/24	White Board, Marker
			Revision	12/Mar/24	12/Mar/24	White Board, Marker

**Physics Department**  
**(SBPCSC)**

Mrs. Prajakta Joshi

**Principal**  
**Mr. S.N. Patil**  
**(SBPCSC)**

Mr. Sachin Suryavanshi

Mrs. Anjali Rane