



Pimpri Chinchwad Education Trust's
S.B. PATIL COLLEGE OF SCIENCE & COMMERCE, RAVET
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UDISE NO: 27252001412

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ACA/DI/15	Teaching Plan (A.Y 2026-27)	Academic Year 2026-27
Rev:00	Subject: Physics	Subject Code(54)
Date: 05/05/2026		Class 12 Sci A, B, C

Chap No.	Name of Chapter	Topics/ content of chapter	Planned Date	Media/ Teaching Aid/ Teaching Method
1	Rotational Dynamics	Intoduction, Angular displacement	4/6/2026	PPT & Whiteboard & Marker
		Angular Velocity, Angular acceleration	4/7/2026	PPT & Whiteboard & Marker
		Real and Pesudo Force	4/8/2026	PPT & Whiteboard & Marker
		Uniform circular motion, UCM application	4/9/2026	PPT & Whiteboard & Marker
		Centripetal force, Centrifugal force	4/10/2026	PPT & Whiteboard & Marker
		Wall of death, Vehicle on a horizontal road	4/11/2026	PPT & Whiteboard & Marker
		Banking of roads,Sums	4/13/2026	PPT & Whiteboard & Marker
		Conical Pendulum, Vertical circular motion,Sums	4/15/2026	PPT & Whiteboard & Marker, Pendulum
		Application of Vertical circular motion,Sums	4/16/2026	PPT & Whiteboard & Marker
		Moment of Inertia, Application of moment of inertia, Radius of gyration.	4/17/2026	PPT & Whiteboard & Marker
		Theorem of parallel axis	4/20/2026	PPT & Whiteboard & Marker
		perpendicular axis,	4/21/2026	PPT & Whiteboard & Marker
		Angular momentum, Expression of Angular momentum,	4/22/2026	PPT & Whiteboard & Marker
		Sums	4/23/2026	PPT & Whiteboard & Marker
		Law of conservation of angular momentum	4/24/2026	PPT & Whiteboard & Marker
		expression for torque,	4/25/2026	PPT & Whiteboard & Marker
rolling motion, Sums	4/27/2026	PPT & Whiteboard & Marker		
		Introduction, p-n Junction as a rectifier	4/28/2026	P N junction Kit

16	Semiconductor Devices	Filter circuit, Zener Diode	4/29/2026	Zener Kit
		Working of a zener regulator	4/30/2026	Zener Kit
		photo cell and photo diode	5/4/2026	Photodiode
		LED and solar cell	5/5/2026	LED
		BJT, Transistor and its types,	5/6/2026	Transistor Kit
		Transistor as a amplifier	5/7/2026	Logic gates Kit
		Logic Gates	5/8/2026	Whiteboard
		Numericals	5/9/2026	Whiteboard
2	Mechanical properties of fluids	Introduction, mechanical properties of fluids, difference between solids and liquids	6/1/2026	PPT & Whiteboard & Marker
		Fluids at rest, pressure due to liquid column	6/2/2026	PPT & Whiteboard & Marker
		Atmospheric pressure, absolute pressure and gauge pressure	6/3/2026	PPT & Whiteboard & Marker
		gauge pressure, hydrostatics paradox	6/4/2026	PPT & Whiteboard & Marker
		Pascal's law and its application	6/5/2026	PPT & Whiteboard & Marker
		Measurement of pressure- Working of mercury barometer and manometer	6/8/2026	PPT & Whiteboard & Marker
		surface tension, some basic defination, difference between cohesive and adhesive	6/9/2026	PPT & Whiteboard & Marker
		Molecular theory of surface tension,surface energy	6/10/2026	PPT & Whiteboard & Marker
		Relation between surface tension and surface energy, sums	6/11/2026	PPT & Whiteboard & Marker
		Angle of contact-shape of miniscus, shape of liquid drop	6/12/2026	PPT & Whiteboard & Marker
		Factors affecting angle of contact, effect of impurity and temperature, sums	6/13/2026	PPT & Whiteboard & Marker
		Excess pressure across the free surface of liquid- plane,convex and	6/15/2026	PPT & Whiteboard & Marker
		Critical velocity and Reynold's number, viscosity, coeeficient of viscosity,Stoke's	6/16/2026	PPT & Whiteboard & Marker
		Bernoulli's equation- spped of efflux	6/17/2026	PPT & Whiteboard & Marker
3	Kinetic Theory of Gases and	Intoduction, Behaviour of gases, ideal and real gas, Mean free path	6/18/2026	PPT & Whiteboard & Marker
		Pressure of ideal gas,Root mean square	6/19/2026	PPT & Whiteboard & Marker
		Interpretation of temperature in kinetic theory	6/20/2026	PPT & Whiteboard & Marker
		Law of equipartition of energy, sums	6/22/2026	PPT & Whiteboard & Marker
		Diatomic molecules	6/23/2026	PPT & Whiteboard & Marker
		Specific heat capacity-Meyers Equation	6/24/2026	PPT & Whiteboard & Marker

3	Cases and Radiation	Absorption, Reflection and transmission of heat radiation,	6/25/2026	PPT & Whiteboard & Marker
		Perfectly black body, emission of heat radiation, sums	6/27/2026	PPT & Whiteboard & Marker
		Kirchoff's law of heat radiation and theoretical proof,	6/29/2026	PPT & Whiteboard & Marker
		spectral distribution of blackbody radiation	6/30/2026	PPT & Whiteboard & Marker
		Wien's displacement law, sums	7/1/2026	PPT & Whiteboard & Marker
		Stefan-Boltzmann law of radiation,	7/2/2026	PPT & Whiteboard & Marker
4	Thermodynamics	Heat, internal energy and work,	7/3/2026	PPT & Whiteboard & Marker
		Thermodynamics system and Process, Heat	7/6/2026	PPT & Whiteboard & Marker
		Change in Internal Energy of a system	7/7/2026	PPT & Whiteboard & Marker
		First law of thermodynamics,	7/8/2026	PPT & Whiteboard & Marker
		Thermodynamics equilibrium,	7/9/2026	PPT & Whiteboard & Marker
		Thermodynamics state variables, PV Diagrams	7/10/2026	PPT & Whiteboard & Marker
		Thermodynamics process, Heat added during process	7/10/2027	PPT & Whiteboard & Marker
Revision For UT 1 exam			7/11/2026	
Unit Test 1			13-07-2026 to 16-07-2026	
4	Thermodynamics	Classification of thermodynamics process	7/17/2026	PPT & Whiteboard & Marker
		Reversible and irreversible process,	7/20/2026	PPT & Whiteboard & Marker
		Isothermal process, Isobaric process ,sums, Isochoric process, Adiabatic process,	7/21/2026	PPT & Whiteboard & Marker
		Cyclic process, Free Expansion, sums, Heat engine - working and expression	7/22/2026	PPT & Whiteboard & Marker
		Refrigerators and heat pumps, Air conditioner, heat pumps, Second law of	7/23/2026	PPT & Whiteboard & Marker
9	Current Electricity	Introduction, Kirchoff's laws	7/24/2026	PPT & Whiteboard & Marker
		Kirchoff's laws- sums	7/27/2026	PPT & Whiteboard & Marker
		Principle of Wheatstone's bridge	7/28/2026	Meterbridge, R Box , Rheostat
		Application of Wheatstone's bridge	7/29/2026	Meterbridge, R Box , Rheostat
		Principle of potentiometer, Individual cell method	7/30/2026	Potentiometer, cells, cell holder, R Box etc
		Potentiometer- Combination method	7/31/2026	Potentiometer, cells, cell holder, R Box etc
		Application of potentiometer	8/3/2026	Potentiometer, cells, cell holder, R Box etc
		Potentiometer- Internal resistance of cell, Principle of Galvanometer, sums.	7/29/2026	Potentiometer, cells, cell holder, R Box etc

		Potentiometer- Kelvins method	7/30/2026	Whiteboard & Marker
		Conversion of MCG into ammeter and voltmeter	7/31/2026	Whiteboard & Marker
		Numericals	7/31/2026	Whiteboard & Marker
8	Electrostatics	Introduction, Applications of Gauss law,	8/3/2026	PPT & Whiteboard & Marker
		Applications of Gauss law,	8/4/2026	PPT & Whiteboard & Marker
		Electric Potential & Potential Energy	8/5/2026	PPT & Whiteboard & Marker
		Expression for potential energy, Relation between electric field and electric potential	8/6/2026	PPT & Whiteboard & Marker
		Electric Potential due to a point charge, due to a system of charges	8/7/2026	PPT & Whiteboard & Marker
		Electric Potential due to a dipole	8/10/2025	PPT & Whiteboard & Marker
		Equipotential surfaces	8/11/2026	PPT & Whiteboard & Marker
		Electrical energy of two point charges and of a dipole in a electrostatic field	8/12/2026	PPT & Whiteboard & Marker
		Electrical energy of a dipole in a external field	8/13/2026	PPT & Whiteboard & Marker
		Conductors & insulators, Free and Bound charge	8/14/2026	PPT & Whiteboard & Marker
		Dielectric & Electric Polarization, Capacitors & capacitance, Combination of	8/17/2026	PPT & Whiteboard & Marker
		Capacitance of parallel plate capacitor with and without dielectric medium, Energy stored in a capacitor	8/18/2026	PPT & Whiteboard & Marker
		Displacement Current , Van de Graff Generator, Numericals	8/19/2026	PPT & Whiteboard & Marker
5	Oscillations	Introduction, Explanation of Periodic Motion, Linear SHM	8/20/2026	PPT & Whiteboard & Marker
		Differential equation of SHM, Acceleration, Velocity, Displacement of SHM and	8/21/2026	PPT & Whiteboard & Marker
		Extreme values of displacement, velocity and acceleration, Terms related to SHM,	8/22/2026	PPT & Whiteboard & Marker
		Graphical Representation of SHM, Composition of two SHM	8/24/2026	PPT & Whiteboard & Marker
		Energy of particle performing SHM, Simple Pendulum, Seconds Pendulum	8/25/2026	PPT & Whiteboard & Marker
		Angular SHM & its Differential equation, Damped Oscillation, Free & Forced	8/27/2026	PPT & Whiteboard & Marker
		Numericals	8/29/2026	PPT & Whiteboard & Marker
6	Superposition of Waves	Introduction, Progressive Wave, Reflection of Waves	8/31/2026	PPT & Whiteboard & Marker
		Superposition of waves, Stationary Waves,	9/1/2026	PPT & Whiteboard & Marker
		Properties of Stationary Waves	9/2/2026	PPT & Whiteboard & Marker
		Free & Forces Vibrations,	9/3/2026	PPT & Whiteboard & Marker
		Harmonics & Overtones,	9/4/2026	PPT & Whiteboard & Marker

		Sonometer	9/7/2026	PPT & Whiteboard & Marker
		Beats & its Applications	9/8/2026	PPT & Whiteboard & Marker
		Numericals	9/9/2026	PPT & Whiteboard & Marker
7	Wave Optics	Introduction	9/10/2026	PPT & Whiteboard & Marker
		Reflection og light by different surfaces,	9/11/2026	PPT & Whiteboard & Marker
		Young.s double slit experiment,	9/12/2026	PPT & Whiteboard & Marker
		Interference	9/15/2026	PPT & Whiteboard & Marker
		Constructive Intereference	9/16/2026	PPT & Whiteboard & Marker
		Diffraction and its types	9/17/2026	PPT & Whiteboard & Marker
		Resolving Powerof Optical instruments	9/21/2026	PPT & Whiteboard & Marker
		Numericals	9/22/2026	PPT & Whiteboard & Marker
		Numericals	9/23/2026	PPT & Whiteboard & Marker
Revision For UT 2 exam			9/24/2026	
Revision For UT 2 exam			9/25/2026	
Unit Test 1			26-09-2026 to 30-09-2026	
10	Magnetic fields due to electric currents	Introduction, Torque acting on Magnetic dipole	10/1/2026	PPT & Whiteboard & Marker
		Origin of magnetism, Magnetic moment og eletron, Gyromagnetic Ration	10/5/2026	PPT & Whiteboard & Marker
		Magnetism and magnetic intensity	10/6/2026	PPT & Whiteboard & Marker
		Magnetic properties of materials-Diamagnetism, Paramagnetism and	10/7/2026	PPT & Whiteboard & Marker
		Domain theory,Hysteresis Permanent magnet and electromagnet, Magnetic	10/8/2026	PPT & Whiteboard & Marker
		Sum	10/9/2026	PPT & Whiteboard & Marker
11	Magnetic Materials	Introduction,Torque acting on a dipole	10/10/2026	PPT & Whiteboard & Marker
		Origin of magnetism,	10/12/2026	PPT & Whiteboard & Marker
		Magnetization and magnetic intensity	10/13/2026	PPT & Whiteboard & Marker
		Magnetic properties of materials-Diamagnetism, Paramagnetism and	10/14/2026	PPT & Whiteboard & Marker
		Domain theory,Hysteresis Permanent magnet and electromagnet,	10/15/2026	PPT & Whiteboard & Marker
		Magnetic shielding,sums	10/16/2026	PPT & Whiteboard & Marker

12	Electromagnetic Induction	Introduction, Faraday's law of electromagnetic induction,	10/19/2026	PPT & Whiteboard & Marker
		Lenz's law , Flux of a field,	10/21/2026	PPT & Whiteboard & Marker
		Motional emf, Induced emf in a stationary coil	10/22/2026	PPT & Whiteboard & Marker
		Generators, Back emf & back torque,	10/23/2026	PPT & Whiteboard & Marker
		Eddy Current, Self Inductance	10/24/2026	PPT & Whiteboard & Marker
		Inductance of a solenoid & Energy stored and energy density in magnetic field	10/26/2026	PPT & Whiteboard & Marker
		Mutual Inductance, Transformer, sums	10/27/2026	PPT & Whiteboard & Marker
Revision For Term -I exam			10/28/2026	PPT & Whiteboard & Marker
Revision For Term -I exam			10/29/2026	PPT & Whiteboard & Marker
Term -I exam			30-10-26 to 6-11-26	
13	AC Circuits	Introduction, AC Generator, Average and rms Values	11/23/2026	PPT & Whiteboard & Marker
		Phasors, Different types of AC circuits	11/24/2026	PPT & Whiteboard & Marker
		Phasor Diagrams, Impedance Triangle	11/25/2026	PPT & Whiteboard & Marker
		Power in AC circuit	11/26/2026	PPT & Whiteboard & Marker
		LC Oscillations, Electric Resonance	11/27/2026	PPT & Whiteboard & Marker
		,Q Factor, Choke Coil Numericals	11/28/2026	PPT & Whiteboard & Marker
14	Dual Nature of Radiation And Matter	Introduction, The Photoelectric Effect,setup and experimental observations of photoelectric effect	11/30/2026	PPT & Whiteboard & Marker
		Graphical Observations of Photoelectric effect	12/1/2026	PPT & Whiteboard & Marker
		Einstein theory of Quantization of energy & Photoelectric equation, Wave Particle	12/2/2026	PPT & Whiteboard & Marker
		Photo cell and its applications, De Broglie's hypothesis and its explanation	12/3/2026	PPT & Whiteboard & Marker
		,Davisson and Germer Experiment,Wave Particle Duality of Matter ,sums	12/4/2026	PPT & Whiteboard & Marker
15	Structure of Atoms and Nuclei	Thomson's atomic model, Geiger Marsden Experiment, Rutherford's Atomic Model,	12/7/2026	PPT & Whiteboard & Marker
		Atomic Spectra, Bohr's Atomic Model	12/8/2026	PPT & Whiteboard & Marker
		Atomic Nucleus, Nuclear Forces	12/9/2026	PPT & Whiteboard & Marker
		,Nuclear Binding Energy, Radioactive decay	12/9/2026	PPT & Whiteboard & Marker
		Law of Radioactive decay, Nuclear Energy,	12/10/2026	PPT & Whiteboard & Marker
		Chain Reaction, Nuclear Fission & Nuclear Fusion, Numericals	12/10/2026	PPT & Whiteboard & Marker

Prelims 1 (Theory Exam)	15/12/26 to 22/12/26
Prelims 1 (Practical Exam)	23/12/26 to 30/12/26
Prelims II (Theory Exam)	1/01/27 to 8/01/27

Subject Teachers

Mrs. Prajakta Joshi

Mrs. Anjali Rane

Mrs. Rita Gadewar

Mr. S. N. Patil

(PRINCIPAL, SBPCSC)