

ACA/DI/15	Teaching Plan (A.Y 2025-26)	Academic Year 2025-26
Rev:00	Subject: Physics	Subject Code(54)
Date: 05/05/2025		Class 12 Sci A, B, C

Chapt No.	Name of Chapter	Topics/ content of chapter	Planned Date	Media/Teaching Aid/ Teaching Method
1	Rotational Dynamics	Intoduction, Angular displacement	4/9/2025	PPT & Whiteboard & Marker
		Angular Velocity, Angular acceleration	4/10/2025	PPT & Whiteboard & Marker
		Real and Pesudo Force	4/11/2025	PPT & Whiteboard & Marker
		Uniform circular motion, UCM application	4/12/2025	PPT & Whiteboard & Marker
		Centripetal force, Centrifugal force	4/15/2025	PPT & Whiteboard & Marker
		Wall of death, Vehicle on a horizontal road	4/16/2025	PPT & Whiteboard & Marker
		Banking of roads,Sums	4/18/2025	PPT & Whiteboard & Marker
		Conical Pendulum, Vertical circular motion,Sums	4/21/2025	PPT & Whiteboard & Marker, Pendulum
		Application of Vertical circular motion,Sums	4/22/2025	PPT & Whiteboard & Marker
		Moment of Inertia, Application of moment of inertia, Radius of gyration.	4/23/2025	PPT & Whiteboard & Marker
		Theorem of parallel axis	4/24/2025	PPT & Whiteboard & Marker
		perpendicular axis,	4/25/2025	PPT & Whiteboard & Marker
		Angular momentum, Expression of Angular momentum,	4/26/2025	PPT & Whiteboard & Marker
		Sums	4/28/2025	PPT & Whiteboard & Marker
		Law of conservation of angular momentum	4/29/2025	PPT & Whiteboard & Marker
		expression for torque,	4/29/2025	PPT & Whiteboard & Marker
		rolling motion, Sums	5/2/2025	PPT & Whiteboard & Marker

16	Semiconductor Devices	Introduction, p-n Junction as a rectifier	5/3/2025	P N junction Kit
		Filter circuit, Zener Diode	5/4/2025	Zener Kit
		Working of a zener regulator	5/5/2025	Zener Kit
		photo cell and photo diode	5/6/2025	Photodiode
		LED and solar cell	5/7/2025	LED
		BJT, Transistor and its types,	5/8/2025	Transistor Kit
		Transistor as a amplifier	5/9/2025	Logic gates Kit
		Logic Gates + Numericals	5/10/2025	Whiteboard
2	Mechanical properties of fluids	Introduction, mechanical properties of fluids, difference between solids and	6/2/2025	PPT & Whiteboard & Marker
		Fluids at rest, pressure due to liquid column	6/3/2025	PPT & Whiteboard & Marker
		Atmospheric pressure, absolute pressure and gauge pressure	6/4/2025	PPT & Whiteboard & Marker
		gauge pressure, hydrostatics paradox	6/5/2025	PPT & Whiteboard & Marker
		Pascal's law and its application	6/6/2025	PPT & Whiteboard & Marker
		Measurement of pressure- Working of mercury barometer and	6/9/2025	PPT & Whiteboard & Marker
		surface tension, some basic definition, difference between cohesive and	6/10/2025	PPT & Whiteboard & Marker
		Molecular theory of surface tension,surface energy	6/11/2025	PPT & Whiteboard & Marker
		Relation between surface tension and surface energy, sums	6/12/2025	PPT & Whiteboard & Marker
		Angle of contact-shape of meniscus, shape of liquid drop	6/13/2025	PPT & Whiteboard & Marker
		Factors affecting angle of contact, effect of impurity and temperature,	6/14/2025	PPT & Whiteboard & Marker
		Excess pressure across the free surface of liquid- plane,convex and	6/14/2025	PPT & Whiteboard & Marker
		Critical velocity and Reynold's number, viscosity, coefficient of	6/16/2025	PPT & Whiteboard & Marker
		Bernoulli's equation- speed of efflux	6/17/2025	PPT & Whiteboard & Marker

3	Kinetic Theory of Gases and Radiation	Intoduction, Behaviour of gases, ideal and real gas, Mean free path	6/18/2025	PPT & Whiteboard & Marker
		Pressure of ideal gas,Root mean square	6/19/2025	PPT & Whiteboard & Marker
		Interpretation of temperature in kinetic theory	6/20/2025	PPT & Whiteboard & Marker
		Law of equipartition of energy, sums	6/23/2025	PPT & Whiteboard & Marker
		Diatomic molecules	6/24/2025	PPT & Whiteboard & Marker
		Specific heat capacity-Meyers Equation	6/25/2025	PPT & Whiteboard & Marker
		Absorption, Reflection and transmission of heat radiation,	6/26/2025	PPT & Whiteboard & Marker
		Perfectly black body, emission of heat radiation,sums	6/27/2025	PPT & Whiteboard & Marker
		Kirchoff's law of heat radiation and theoretical proof,	6/28/2025	PPT & Whiteboard & Marker
		spectral distribution of blackbody radiation	6/29/2025	PPT & Whiteboard & Marker
		Wien's displacement law, sums	6/30/2025	PPT & Whiteboard & Marker
		Stefan-Boltzmann law of radiation,	6/30/2025	PPT & Whiteboard & Marker
4	Thermodynamics	Heat, internal enegy and work,	7/1/2025	PPT & Whiteboard & Marker
		Thermodynamics system and Process, Heat	7/2/2025	PPT & Whiteboard & Marker
		Change in Internal Energy of a system	7/3/2025	PPT & Whiteboard & Marker
		First law of thermodynamics,	7/3/2025	PPT & Whiteboard & Marker
		Thermodynamics equillibrium,	7/4/2025	PPT & Whiteboard & Marker
		Thermodynamics state variables, PV Diagrams	7/7/2025	PPT & Whiteboard & Marker
		Thermodynamics process,Heat added during process	07-07-202	PPT & Whiteboard & Marker
		Classification of thermodynamics process	08-07-202	PPT & Whiteboard & Marker
		,Reversible and irreversible process,	7/9/2025	PPT & Whiteboard & Marker
		Isothermal process, Isobaric process ,sums,Isochoric process,Adiabatic	7/10/2025	PPT & Whiteboard & Marker
		Cyclic process,Free Expansion, sums,Heat engine - working and expression	7/11/2025	PPT & Whiteboard & Marker
		Refrigerators and heat pumps,Air conditioner, heat pumps, Second law	7/11/2026	PPT & Whiteboard & Marker
		Carnot's cycle and engine, Sterling Cycle, Numericals	7/12/2025	PPT & Whiteboard & Marker

		Revision For UT 1 exam	7/12/2025	
		Revision For UT 1 exam	7/14/2025	
		Unit Test 1	15-07-2025 to 18-07-202	
9	Current Electricity	Intoduction, Kirchoff's laws	7/21/2025	PPT & Whiteboard & Marker
		Kirchoff's laws- sums	7/22/2025	PPT & Whiteboard & Marker
		Principle of Wheatstone's bridge	7/23/2025	Meterbridge, R Box , Rheostat
		Application of Wheatstone's bridge	7/24/2025	Meterbridge, R Box , Rheostat
		Principle of potentiometer, Individual cell method	7/25/2025	Potentiometer, cells, cell holder, R Box etc
		Potentiometer- Combination method	7/26/2025	Potentiometer, cells, cell holder, R Box etc
		Application of potentiometer	7/28/2025	Potentiometer, cells, cell holder, R Box etc
		Potentiometer- Internal resistance of cell, Principle of Galvanometer,	7/29/2025	Potentiometer, cells, cell holder, R Box etc
		Potentiometer- Kelvins method	7/30/2025	Whiteboard & Marker
		Conversion of MCG into ammeter and voltmeter	7/31/2025	Whiteboard & Marker
		Numericals	7/31/2025	Whiteboard & Marker
8	Electrostatics	Introduction, Applications of Gauss law,	8/1/2025	PPT & Whiteboard & Marker
		Applications of Gauss law,	8/4/2025	PPT & Whiteboard & Marker
		Electric Potential & Potential Energy	8/5/2025	PPT & Whiteboard & Marker
		Expression for potential energy, Relation between electric field and	8/6/2025	PPT & Whiteboard & Marker
		Electric Potential due to a point charge, due to a system of charges	8/7/2025	PPT & Whiteboard & Marker
		Electric Potential due to a dipole	8/8/2025	PPT & Whiteboard & Marker
		Equipotential surfaces	8/11/2025	PPT & Whiteboard & Marker
		Electrical energy of two point charges and of a dipole in a electrostatic field	8/12/2025	PPT & Whiteboard & Marker
		Electrical energy of a dipole in a external field	8/13/2025	PPT & Whiteboard & Marker
		Conductors & insulators, Free and Bound charge	8/13/2025	PPT & Whiteboard & Marker
		Dielectric & Electric Polarization,Capacitors & capacitance,	8/14/2025	PPT & Whiteboard & Marker
		Capacitance of parallel plate capacitor with and without dielectric medium. Energy stored in a capacitor	8/18/2025	PPT & Whiteboard & Marker
		Displacement Current , Van de Graff Generator,Numericals	8/18/2025	PPT & Whiteboard & Marker

5	Oscillations	Introduction, Explanation of Periodic Motion, Linear SHM	8/19/2025	PPT & Whiteboard & Marker
		Differential equation of SHM, Acceleration, Velocity, Displacement of	8/20/2025	PPT & Whiteboard & Marker
		Extreme values of displacement, velocity and acceleration, Terms related	8/21/2025	PPT & Whiteboard & Marker
		Graphical Representation of SHM, Composition of two SHM	8/22/2025	PPT & Whiteboard & Marker
		Energy of particle performing SHM, Simple Pendulum, Seconds	8/23/2025	PPT & Whiteboard & Marker
		Angular SHM & its Differential equation, Damped Oscillation, Free &	8/25/2025	PPT & Whiteboard & Marker
		Numericals	8/26/2025	PPT & Whiteboard & Marker
6	Superposition of Waves	Introduction, Progressive Wave, Reflection of Waves	8/28/2025	PPT & Whiteboard & Marker
		Superposition of waves, Stationary Waves,	8/29/2025	PPT & Whiteboard & Marker
		Properties of Stationary Waves	8/30/2025	PPT & Whiteboard & Marker
		Free & Forced Vibrations,	9/2/2025	PPT & Whiteboard & Marker
		Harmonics & Overtones,	9/3/2025	PPT & Whiteboard & Marker
		Sonometer	9/4/2025	Sonometer
		Beats & its Applications	9/5/2025	PPT & Whiteboard & Marker
		Numericals	9/5/2025	PPT & Whiteboard & Marker
		Revision For UT 2 exam	9/8/2025	
		UT 2	09-09-25 to 12-09-25	
7	Wave Optics	Introduction	9/13/2025	PPT & Whiteboard & Marker
		Reflection of light by different surfaces, Interference	9/15/2025	PPT & Whiteboard & Marker
		Young's double slit experiment,	9/16/2025	PPT & Whiteboard & Marker
		Diffraction and its types	9/17/2025	PPT & Whiteboard & Marker
		Resolving Power of Optical instruments	9/18/2025	PPT & Whiteboard & Marker
		Numericals	9/19/2025	PPT & Whiteboard & Marker
		Numericals	9/19/2025	PPT & Whiteboard & Marker

10	Magnetic fields due to electric currents	Introduction, Magnetic force, Cyclotron motion, cyclotron accelerator	9/22/2025	PPT & Whiteboard & Marker
		Helical motion,Magnetic force on a wire carrying a current	9/23/2025	PPT & Whiteboard & Marker
		Force on a closed circuit in a magnetic field,	9/24/2025	PPT & Whiteboard & Marker
		Moving coil galvanometer	9/25/2025	PPT & Whiteboard & Marker
		, Magnetic dipole moment,	9/26/2025	PPT & Whiteboard & Marker
		forces of attraction between two long parallel wires, sums	9/27/2025	PPT & Whiteboard & Marker
		Torque on a current loop	9/29/2025	PPT & Whiteboard & Marker
		magnetic field produced by a current in a circular coil,	9/30/2025	PPT & Whiteboard & Marker
		Axial magnetic field due to current in a circular loop, ,	10/1/2025	PPT & Whiteboard & Marker
		Magnetic lines for a current loop,Ampere's law	10/3/2025	PPT & Whiteboard & Marker
		Magnetic field of a solenoid and a toroid,sums	10/6/2025	PPT & Whiteboard & Marker
Revision for Term Exam			7-10-25 to 9-10-25	
Term Exam Start and End			10-10-25 to 17-10-25	
11	Magnetic Materials	Introduction,Torque acting on a dipole	11/4/2025	PPT & Whiteboard & Marker
		Origin of magnetism,	11/6/2025	PPT & Whiteboard & Marker
		Magnetization and magnetic intensity	11/7/2025	PPT & Whiteboard & Marker
		Magnetic properties of materials-Diamagnetism, Paramagnetism and	11/7/2025	PPT & Whiteboard & Marker
		Domain theory,Hysteresis Permanent magnet and electromagnet, Magn	11/8/2025	PPT & Whiteboard & Marker
		Sums	11/8/2025	PPT & Whiteboard & Marker
12	Electromagnetic Induction	Introduction, Faraday's law of electromagnetic induction,	11/10/2025	PPT & Whiteboard & Marker
		Lenz's law , Flux of a field,	11/11/2025	PPT & Whiteboard & Marker
		Motional emf, Induced emf in a stationary coil	11/12/2025	PPT & Whiteboard & Marker
		Generators, Back emf & back torque,	11/13/2025	PPT & Whiteboard & Marker
		Induction & Energy transfer,Inductance,	11/14/2025	PPT & Whiteboard & Marker
		Eddy Current, Self	11/17/2025	PPT & Whiteboard & Marker
		Mutual Inductance,	11/18/2025	PPT & Whiteboard & Marker
		Transformer, sums	11/19/2025	PPT & Whiteboard & Marker

13	AC Circuits	Introduction,	11/20/2025	PPT & Whiteboard & Marker
		AC Generator,	11/21/2025	PPT & Whiteboard & Marker
		Phasors	11/22/2025	PPT & Whiteboard & Marker
		Different types of AC circuits	11/24/2025	PPT & Whiteboard & Marker
		Phasor Diagrams	11/25/2025	PPT & Whiteboard & Marker
		Impedance Triangle	11/26/2025	PPT & Whiteboard & Marker
		, Power in AC circuit	11/27/2025	PPT & Whiteboard & Marker
		LC Oscillations, Electric Resonance	11/28/2025	PPT & Whiteboard & Marker
		,Q Factor, Choke Coil Numericals	11/29/2025	PPT & Whiteboard & Marker
14	Dual Nature of Radiation And Matter	Introduction, The Photoelectric Effect,	12/1/2025	PPT & Whiteboard & Marker
		setup and experimental observations of photoelectric effect	12/1/2025	PPT & Whiteboard & Marker
		Graphical Observations of Photoelectric effect	12/2/2025	PPT & Whiteboard & Marker
		Einstein theory of Quantization of energy & Photoelectric equation	12/2/2025	PPT & Whiteboard & Marker
		Wave Particle Duality of electromagnetic radiation	12/3/2025	PPT & Whiteboard & Marker
		Photo cell and its applications,	12/3/2025	PPT & Whiteboard & Marker
		De Broglie's hypothesis and its explanation	12/4/2025	PPT & Whiteboard & Marker
		,Davisson and Germer Experiment,	12/5/2025	PPT & Whiteboard & Marker
		Wave Particle Duality of Matter ,sums	12/5/2025	PPT & Whiteboard & Marker
15	Structure of Atoms and Nuclei	Geiger Marsden Experiment, Rutherford's Atomic Model,	12/8/2025	PPT & Whiteboard & Marker
		Atomic Spectra,	12/9/2025	PPT & Whiteboard & Marker
		Bohr's Atomic Model	12/10/2025	PPT & Whiteboard & Marker
		Atomic Nucleus, Nuclear Forces	12/11/2025	PPT & Whiteboard & Marker
		,Nuclear Binding Energy, Radioactive decay	12/12/2025	PPT & Whiteboard & Marker
		Law of Radioactive decay, Nuclear Energy,	12/15/2025	PPT & Whiteboard & Marker
		Chain Reaction,	12/16/2025	PPT & Whiteboard & Marker
		Nuclear Fission & Nuclear Fusion	12/17/2025	PPT & Whiteboard & Marker
		Numericals	12/18/2025	PPT & Whiteboard & Marker

Revision	22/12/25 to 24/12/25
Pelim-I	2/01/26 to 10/01/26
Pelim-II	22/01/26 to 30/01/26
Prelim Practical Exam	12/01/26 to 21/01/26

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