

Class 11 – PCM

Course Syllabus

Physics

Module 1: Units and Measurement

Topics: SI units, measuring accurately, errors

Module 2: Motion

Topics: straight-line and plane motion, projectiles, vectors

Module 3: Laws of Motion

Topics: Newton's laws, friction, circular motion

Module 4: Work, Energy and Power

Topics: work-energy theorem, conservation of energy, collisions

Module 5: Rotational Motion and Gravitation

Topics: torque, moment of inertia, planetary motion

Module 6: Properties of Matter

Topics: elasticity, fluids, viscosity, surface tension

Module 7: Thermodynamics and Kinetic Theory

Topics: heat, laws of thermodynamics, gases

Module 8: Oscillations and Waves

Topics: simple harmonic motion, wave motion, sound

Chemistry

Module 9: Basic Concepts of Chemistry

Topics: mole concept, formulas, stoichiometry

Module 10: Structure of Atom

Topics: atomic models, quantum numbers, electron configuration

Module 11: Periodic Table

Topics: classification of elements and periodic trends

Module 12: Chemical Bonding

Topics: types of bonds, shapes of molecules

Module 13: Thermodynamics

Topics: heat, energy changes, enthalpy

Module 14: Equilibrium

Topics: chemical and ionic equilibrium, pH

Module 15: Redox Reactions

Topics: oxidation and reduction, balancing

Module 16: Organic Chemistry Basics

Topics: naming, isomerism, reaction types

Module 17: Hydrocarbons

Topics: alkanes, alkenes, alkynes, aromatic compounds

Mathematics

Module 18: Sets, Relations and Functions

Topics: sets, Venn diagrams, relations, functions and their graphs

Module 19: Trigonometric Functions

Topics: angles, identities, trigonometric equations

Module 20: Complex Numbers and Quadratic Equations

Topics: imaginary numbers, solving quadratic equations

Module 21: Linear Inequalities

Topics: solving and graphing inequalities

Module 22: Permutations, Combinations and Binomial Theorem

Topics: counting methods, expanding powers

Module 23: Sequences and Series

Topics: AP, GP and special series

Module 24: Straight Lines and Conic Sections

Topics: equations of lines, circle, parabola, ellipse, hyperbola

Module 25: Limits and Derivatives

Topics: idea of limits, basic differentiation

Module 26: Statistics and Probability

Topics: spread of data, probability of events