

**JEE-Main Online Crash Course Tests & Syllabus**

Unit Test	Physics	Chemistry	Mathematics
1	Essential Mathematics, Units & Dimensions, Vectors, Error, Motion in One Dimension, Motion in Two Dimension, Projectile Motion, Relative Motion, Circular Motion, Newton's Law of Motion, Friction	Atomic Structure, Periodic Table, Chemical Bonding	Quadratic Equation, Sets, Statistics, Mathematical Reasoning, Mathematical Induction, Trigonometric Ratio and Identities
2	Work, Power & Energy, Momentum, Center of Mass, Conservation of Energy & Momentum, Rigid Body Dynamics, Rotational Motion	Basic Concepts of Chemistry, Redox and Volumetric Analysis, Gaseous State, Chemical equilibrium	Trigonometric Equations, Heights and Distances, Progressions, Permutation and Combination
3	Simple Harmonic Motion (SHM), Gravitation, Properties of Matter, Elasticity, Surface Tension, Viscosity, Hydrostatics, Fluid Dynamics, Calorimetry, Thermal Expansion	Acid Base, Ionic equilibrium, Chemical Energetics, Classification & Nomenclature, Isomerism (Except Optical Isomerism and Tautomerism)	Binomial Theorem, Point and Straight Line, Circle
4	Kinetic Theory of Gases, Law of Thermodynamics, Heat Transfer, Transverse Waves, Longitudinal Waves, Doppler's Effect in Mechanical Waves	GOC-1 (Brief Idea of Electronic Displacement Effects), Hydrocarbons (Preparation Methods, Physical and Chemical Properties without Optical Isomerism Application), Purification of Organic Compounds, s-block Elements, Environmental Chemistry, p-block elements [Part-1 (Boron and Carbon Family)], Hydrogen and its Compounds	Parabola, Ellipse, Hyperbola
5	Electrostatics, Gauss Law, Capacitance & Capacitor, Current Electricity, Heating Effect of Current	Chemical Kinetics, Nuclear Chemistry and Surface Chemistry, Electrochemistry, Solid State, Solution and colligative properties	Relation, Function & Inverse Trigonometric Functions, Limit and Continuity of Function, Differentiability and Differentiation
6	Magnetism, Magnetic effect of Current, Electromagnetic Induction, Alternating Current	General Organic Chemistry, Optical Isomerism and Tautomerism, Hydrocarbons, Halogen Derivatives	Application of Differentiation #1 [Tangent & Normal, Mean Value Theorems and Rate Measurement], Application of Differentiation #2 [Monotonicity, Maxima and Minima], Indefinite Integration
7	Reflection Plane & Spherical Surface, Refraction on Plane Surface, Prism, Refraction on Curved Surface, Lens, Optical Instrument	Aromatic Chemistry, Alcohol, Ether and Phenol, Carbonyl Compounds, Carboxylic Acid and its Derivatives, Nitrogen Compounds and Amines, Carbohydrates, Amino Acid, Protein and Polymers, Practical Organic Chemistry, Chemistry in everyday life	Definite Integration, Area under the Curves and Differential Equation, Probability
8	Light Waves, Interference of Light, Diffraction, Polarisation, Atomic Structure in Modern Physics, Matter Waves & De-Broglie, Photo-Electric Effect, Radioactivity, Nuclear Physics, Semiconductors and Electronics, EM Waves, Communication Systems, Vernier Callipers, Screw Gauge	Co-ordination Compound, Metallurgy, p-block elements [Part-2 (Nitrogen, Oxygen, Halogen Family and Noble Gas)], Salt/Qualitative Analysis, Transitional Elements	Complex Number, Matrices and Determinants, Vector and Three Dimensional Geometry
Major Test	Physics	Chemistry	Mathematics
1	Full Syllabus	Full Syllabus	Full Syllabus
2	Full Syllabus	Full Syllabus	Full Syllabus
3	Full Syllabus	Full Syllabus	Full Syllabus
4	Full Syllabus	Full Syllabus	Full Syllabus
5	Full Syllabus	Full Syllabus	Full Syllabus