JEE (Main)

Study Material Syllabus

[For both English/Hindi Medium Students]

PHYSICS

Unit No.	Topic Covered
01	Basic Mathematics used in Physics, Vectors, Units, Dimensions and Measurement, Electrostatics
02	Kinematics (Motion along a straight line and Motion in a plane), Current electricity
03	Laws of Motion and Friction, Capacitors
04	Work, Energy & Power, Circular Motion, Magnetic effect of current and Magnetism
05	Conservation Laws-Collisions and Centre of Mass, Electromagnetic Induction (EMI)
06	Rotational Motion, Alternating current
07	Thermal Physics (Thermal Expansion, Calorimetry , Heat Transfer, KTG & Thermodynamics), Ray optics and optical Instruments
08	Properties of matter and Fluid Mechanics, Gravitation, Wave optics (Nature of Light , Interference, Diffraction & Polarisation), EM Waves
09	Oscillations (SHM, damped and forced oscillations & Resonance), Modern Physics
10	Wave Motion and Doppler's Effect, Electronics and Communication systems

CHEMISTRY

Unit No.	Topic Covered
01	Mole Concept, Atomic structure, Organic nomenclature, Handbook of Basic principles of practical organic chemistry.
02	Periodic properties, Basic inorganic nomenclature, Chemical thermodynamics & Thermochemistry
03	GOC (application of electronic effect, aromaticity, application of Inductive, Resonance, Hyperconjugation effect on stability of intermediates, acidic & basic strength).
04	Chemical Bonding, Solid state, Chemical kinetics
05	Isomerism, Chemical Equilibrium,State of matter (gaseous state),Redox & equivalent concept
06	Ionic Equilibrium, Acid Base theory, Nuclear chemistry, Reaction intermediate.
07	Co-ordination compound, s-block elements & hydrogen, (Boron & Carbon family.)
08	Haloalkane, Aryl Halide(Substitution & Elimination), Electrochemistry & Solution, Ores & Metallurgy.
09	Alkane, Alkenes & Alkynes, Aromatic hydrocarbon, Organic compounds containing oxygen & nitrogen, Qualitative anaylsis.
10	Biomolecules (Carbohydrates, Amino Acid, Proteins), Polymer,Practical organic chemistry(Identification of elements & functional groups),Chemistry in everyday life, Environmental chemistry, Surface chemistry, d&f block element, p-block (nitrogen, oxygen, fluorine & noble gas) family.

MATHEMATICS

Unit No.	Topic Covered
01	**Logarithms, Trigonometric Ratios and Identities , Matrices & Determinants
02	Quadratic Equations & Linear Inequilities , Functions and Inverse Trignometric Function
03	Trigonometric Equations, Height & Distance , Differential Calculus (Limit, Continuity , Differentiability , Differentiation)
04	Point and Straight Line ,Indefinite integration
05	Circle, Definite integration
06	Sequences and Series, Application of Derivatives (Maxima & Minima, Monotonicity, Tangent & Normal)
07	Permutation & Combination and Binomial Theorem, Vectors
08	Complex Numbers, Principle of Mathematical Induction, Three Dimensional geometry
09	Parabola, Ellipse & Hyperbola , Area under the curve and Differential Equations
10	[Sets, Relation, Statistics, Mathematical Reasoning] , Probability

**Marked topic / topics are only in JEE (Advanced)