

[For English Medium Students]

PHYSICS**Unit No. Topic Covered**

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| 01 | Basic Mathematics used in Physics, Vectors, Units, Dimensions and Measurement, Electrostatics |
| 02 | Kinematics, Current electricity |
| 03 | Laws of Motion and Friction ,Capacitors |
| 04 | Work, Energy & Power, Magnetic effect of current, Magnetism and Matter |
| 05 | Centre of Mass & Collisions, Electromagnetic Induction (EMI) |
| 06 | Rotational Motion, Alternating current (AC) |
| 07 | Thermal Physics (Thermal Expansion, Calorimetry , Heat Transfer, KTG & Thermodynamics, Second law of Thermodynamics, Carnot engine and its efficiency), Ray optics and optical Instruments |
| 08 | Properties of matter and Fluid Mechanics, Gravitation, Wave optics (Nature of Light , Interference, Diffraction & Polarisation), Electromagnetic Waves |
| 09 | Simple Harmonic Motion, Modern Physics |
| 10 | Waves(String & Sound waves), Practical Physics, Electronics and Communication systems |

CHEMISTRY**Unit No. Topic Covered**

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| 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, Reaction intermediate. |

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| 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 analysis. |
| 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**

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| 01 | Logarithms, Trigonometric Ratios and Identities , Matrices & Determinants |
| 02 | Quadratic Equations & Linear Inequilities, Functions and Inverse Trigonometric Function |
| 03 | Trigonometric Equations, Height and 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 |