## **SYLLABUS:**

Syllabus of Physics and Chemistry of all four sets is as follows:

## **PHYSICS**

11 <sup>th</sup>	12 <sup>th</sup>
Motion in a Straight Line (excluded-Position time graph, Speed & Velocity)	Electric Charge and Fields (excluded- Uniformly charged thin spherical shell)
Motion in a Plane	Electrostatic Potential and Capacitor
Law of Motions ( Newton's 2 <sup>nd</sup> Law, Momentum &Friction)	Current Electricity (excluded- carbon resistor &colour code, series & parallel combination)
Work, Power and Energy	Moving Charges and Magnetism (excluded-cyclotron)
Thermodynamics (excluded- heat engine &refrigerator)	Electromagnetic Induction
Simple Harmonic Motion	Alternating Current (excluded- power factor &wattles current)
	Ray optics (refraction through curved surfaces, Lens & Lens maker formula)

## **CHEMISTRY**

11 <sup>th</sup>	12 <sup>th</sup>
Some Basic Concepts of Chemistry	Solid State (exclude- electrical & magnetic properties , semiconductor part)
Structure of Atom (excluded- Thomson's &Rutherford's Model)	Solution (exclude- abnormal molar mass, Van't Hoff factor)
Classification of Elements and Periodicity	Electrochemistry (exclude- types of cell & law ofelectrolysis)
Chemical Bonding	Chemical Kinetics (exclude- concept of collision theory, activation energy & Arrhenius equation)
Gaseous State (exclude- liquefaction of gases, Kinetic energy & Molecular Speed)	The P-Block (exclude- preparation & properties ofphosphine, sulphuric acid, oxides of nitrogen, phosphorous, halides & Oxo acids)
Basic Concepts of Organics Chemistry(exclude- methods of purification & quantitative analysis)	Coordination compounds (exclude- structure &stereoisomerism)
	Haloalkanes and Haloarenes ( exclude- uses of allcompounds)
	Alcohol, Phenol and Ether (exclude- uses withreference to methanol & ethanol)

## **MATHEMATICS (For JEE Aspirants only)**

11 <sup>th</sup>	12 <sup>th</sup>
Trigonometry	Relation and Functions (exclude- composite function& Inverse of function)
Complex Number (exclude- Polar representation & square root of complexnumber)	Matrices (exclude- concept of elementary row & columnoperation)
Quadratic Equation	Determinant (exclude- properties of determinant, no. ofsolution of linear equation)
Permutation and Combination	Continuity and Differentiability (exclude- Rolle's &lagrange's MVT)
Limits and Derivatives	Application of Derivative (exclude- rate of change ofbodies, approximation)
Sequence and Series (exclude- formula forspecial term like sum of k,k <sup>2</sup> & k <sup>3</sup>	Integration (exclude- definite integrals as limit of sum, integration of form $\sqrt{ax^2 + bx + c}$ )dx
	Application of Integration (area between any of the twoabove said curves)