Syllabus for JEE-Mains and JEE- Advanced Part Tests

*MARKED TOPIC / TOPICS ARE ONLY IN JEE -MAIN SYLLABUS

Part Test 1-

<u>Physics</u>: Vectors, Units, Dimensions and Measurement, Kinematics, Laws of Motion and Friction, Work, Energy & Power, Electrostatics, Capacitors, Current electricity, Magnetic effect of current, Magnetism and Magnetic Properties of Matter*.

<u>Chemistry</u>: Some Basic Concepts in Chemistry, Atomic Structure, Chemical Bonding and Molecular Structure, Classification of Elements and Periodicity in Properties, Mole Concept, Stoichiometry and Redox reaction, States of Matter-Liquid and Gaseous State, Chemical Kinetics, Chemical Equilibrium, Hydrogen and S block Elements, Boron And carbon family.

<u>Mathematics</u>: Linear Inequalities, Logarithms**, Trigonometric Ratios and Identities, Trigonometric Equations, Solution of Triangles**, Height and Distance*, Sequences and Series, Quadratic Equations, Binomial Theorem, Permutation & Combination, Straight Line & Pair of Straight line.

Part Test 2-

<u>Physics:</u> Centre of Mass & Collisions, Rotational Motion, Thermal Physics (Thermal Expansion, Calorimetry, Heat Transfer, KTG & Thermodynamics), Electromagnetic Induction, Alternating current (AC), Geometrical Optics.

Chemistry: Ionic Equilibrium, Concept of Acid and Bases, Organic- Chemistry (Complete).

<u>Mathematics</u>: Sets and Relation*, Functions, Inverse Trigonometric Function, Differential Calculus (Limit, Continuity, Differentiability, Differentiation), Application of Derivatives (Maxima & Minima, Monotonicity, Tangent & Normal, Rate Measurement*, Approximations*), Circle, Parabola, Ellipse, Hyperbola.

Part Test 3-

<u>Physics:</u> Gravitation, Properties of matter and Fluid Mechanics, Simple Harmonic Motion, Waves(String & Sound waves), Wave optics (Nature of Light, Interference, Diffraction* & Polarization*), Electromagnetic Waves*, Modern Physics, Electronics and Communication systems*, Practical Physics.

<u>Chemistry:</u> Thermodynamics, Electrochemistry, Solutions, Surface Chemistry, Solid State, P- Block elements, D and F Block elements, Co-Ordination Compounds, Ores & Metallurgical Process, Qualitative Analysis, Biomolecules and Polymers, Environmental Chemistry*, Chemistry in everyday life*.

<u>Mathematics:</u> Indefinite integration, definite integration, Area under the curve, Differential Equations, Matrices & Determinants, Probability, Vector Algebra, Three Dimensional geometry, Principle of Mathematical Induction*, Mathematical Reasoning* Statistics*.

^{**}MARKED TOPIC / TOPICS ARE ONLY IN JEE-ADVANCED SYLLABUS