

## Class XI, JEE (Main) All India Test Series Syllabus

S. No.	Postal Date	Code	PHYSICS	MATHS	CHEMISTRY	
1	04-Jul-17	PT-1	Mathematical Tools	Sets, Relation & Function, Fundamentals of Mathematics-I (FOM-I) ( Number system, Important formula, Componendo & Dividendo, Idea of polynomial, Factor theorem/Remainder theorem Idea of intervals)	Introduction To Chemistry(Basic definition : amu , GMM ,GAM, mole , Avogadro's number, Mole-mass-number conversion for atoms/molecules, Avg. molar mass, Units of P, T, V and interconversion, PV=nRT & Question based on it, STP)	IUPAC-Nomenclature of Alkane & Cyclo alkane with complex alkyl radical
2	11-Jul-17	CT-1	Mathematical Tools, Rectilinear Motion	Sets, Relation and Function, Fundamental of Mathematics -I, ( Number system, Important formula, Componendo & Dividendo, Idea of polynomial, Factor theorem/Remainder theorem, Idea of intervals, Method of Interval , Logarithm : Definition, Identity, Properties, Graph, Logarithm equation, Logarithmic Inequalities, Characteristic and mantissa : Anti log Log table Determinant and expansion of determinant)	Introduction to Chemistry, Atomic Structure (History of Atom- Properties of Cathode & Anode rays, Discovery of Neutron, Charge and Mass of Fundamental particles, Thomson & Rutherford's Model, Properties of Charge, Atomic No. / Mass No., Isotopes, Isobars, Isotones, Isoelectronic, Properties of waves, Electronic wave radiation, Quantum theory of Light)	IUPAC-Nomenclature of chain terminating Functional groups (Aldehyde & Carboxylic acids, (Amides, Oyl halide & Nitriles)
3	17-Aug-17	PT-2	Rectilinear Motion, Projectile Motion, Relative Motion, Newton's Law of Motion(NLM)(Basic force , NLM 1st, 2nd , 3rd Law (Action Reaction), Tension, Normal System F.B.D., Problem of equilibrium, Problem of acceleration, Constrained motion (string), Constrained motion (wedge))	FOM-I, Quadratic Equation, Sequence & series : (Introduction (Finish sequence and infinite sequence) A.P. : General form, sum, Properties A.P., Arithmetic mean (A.M.), G.P. → General term, sum, Properties of G.P. Geometric mean, Harmonic progression, Harmonic Mean).	Introduction to Chemistry & Atomic Structure	IUPAC Nomenclature, Structural Isomerism, All basic concepts of Organic chemistry (ABC-1)
4	05-Sep-17	CT-2	Mathematical Tools, Rectilinear Motion, Projectile Motion, Relative Motion, NLM, Friction	Sets, Relation and Function, FOM-I, Quadratic Equation, Sequence & series, FOM-II (Modulus function : Definition, Equations, Graphs of Modulus (Linear only), Equations involving Modulus. , Inequalities involving modulus , Irrational Inequalities, Signum Function, Dirichlet Function, Graphs related to modulus)	Introduction to Chemistry, Atomic Structure, Gaseous State-1(Boyle's law, Charles's law, Gay-lussac's law, Avogadro's hypothesis, Ideal gas Equation, Connecting vessels problems, Dalton's law and its applications)	IUPAC Nomenclature , Structural Isomerism, All basic concepts of Organic chemistry (ABC-1), Structural Identification & Periodic Table
5	26-Sep-17	CT-3	Rectilinear Motion, Projectile Motion , Relative Motion , NLM, Friction, Unit and dimension, Work, Power & Energy (WPE)	Sets, Relation and Function, FOM-I, Quadratic Equation, Sequence & Series, FOM-II, Trigonometry : T-ratios of allied angles, Domain and range, Graph of T-ratios, Sum or different of two angles (Sine and Cosine), Transformation of product into sum, Transformation of product into product, T-ratio of sum or different of tan and cot, T-ratio of multiple and sub multiple, Conditional identity, Product of cosine series, Maximum and Minimum of trigonometric expression, Sum of sine and cosine series, Type of trigonometric equation (a) Using factorization (b) Reducing them in quadratic equation, (c) Using sum, diff. and product of trigonometric ratios (d) Equation of form $a \sin x + b \cos x = c$ , (e) Equation of form $P(\sin x \pm \cos x, \sin x \cos x)$ , (f) Use of boundness of trigonometric ratios $\sin x$ and $\cos x$ Trigonometric inequality, Height & distance	Introduction to Chemistry, Atomic Structure, Gaseous state-1	ABC-I & Structural Identification, Periodic table, Basic Inorganic Nomenclature( BIN) & Chemical Bonding (Types of bonding (Definitions of ionic bond Covalent bond and Metallic bond) and octet rule, Limitations of octet rule, VBT, Co-valent Bond formation $\sigma$ & $\pi$ bond Formal charge )
6	05-Dec-17	CT-4	Rectilinear Motion, Projectile Motion , Relative Motion, NLM, Friction, Unit and dimension, WPE, Circular motion, Centre of Mass (COM), Rigid Body Dynamics (RBD).	Sets, Relation & Function, FOM-I, FOM-II, Quadratic Equation, Sequence and Series , Trigonometry , Solution of Triangle (SOT), Binomial Theorem, Statistics, Straight Line.	Introduction to Chemistry, Atomic Structure, Mole Concept, Gaseous State-1, Chemical Equilibrium, Gaseous State-2 (Introduction of Real gas)	Periodic table, BIN, Chemical Bonding, ABC-II(ABC-Phenol, ABC-Aniline)
7	26-Dec-17	PT-3	RBD, Simple Harmonic Motion (SHM), Fluid mechanics, Surface tension.	Statistics, Principle of Mathematical Induction, Straight Line, Circle.	Gaseous State-2, Chemical Equilibrium, Thermodynamics & Thermochemistry (Introduction & Definitions, Reversible & Irreversible Process, Introduction of First Law, Heat & Internal Energy, Calculation of Work - Isothermal, Isochoric & Isobaric)	ABC-II, General Organic Chemistry (GOC-1) (Inductive effect Resonance, Resonance (Drawing Structure), Stability of Resonating structure, Mesomeric effect, Hyperconjugation)
8	09-Jan-18	CT-5	Rectilinear motion, Projectile motion, Relative motion, NLM, Friction, WPE, Circular Motion, COM, RBD, SHM, Fluid mechanics, Surface tension, String wave	Sets, Relation & Function, FOM-I, FOM-II, Quadratic Equation, Sequence & Series, Trigonometry, SOT, Binomial Theorem, Statistics, Principle of Mathematical Induction, Straight Line, Circle, Permutation & Combination( Fundamental principle of counting, Permutation and arrangements of objects)	Introduction to Chemistry, Atomic Structure, Gaseous state-1 , Mole Concept, Chemical Equilibrium, Gaseous State-2, Thermodynamics & Thermochemistry (Introduction & Definitions , Reversible & Irreversible Process, Introduction of First Law , Heat & Internal Energy , Calculation of Work - Isothermal, Isochoric & Isobaric, $C_p$ & $C_v$ , $\gamma$ (gamma), enthalpy, Reversible Adiabatic, Graph based problems, Irreversible Adiabatic & Comparison, Phase transformation & work done during chemical reactions, Introduction of second Law and entropy, Entropy Calculation)	ABC-II, GOC-I (Inductive effect Resonance, Resonance (Drawing Structure), Stability of Resonating structure, Mesomeric effect, Hyperconjugation, Application of I.R., M HC effects (Bond Length & Electron density on benzene ring), Aromaticity ), ABC-III (ABC-Carbonyl, ABC-Carboxylic acid)
9	06-Feb-18	PT-4	Elasticity and viscosity, String wave, sound wave, KTG and thermodynamics (Assumptions, derivation of pressure, Maxwell equation, various speed, Mean Free Path, Degree of freedom, Internal Energy, System, Ideal gas, Various laws, various process, Calculation of work)	Permutation & Combination, Mathematical Reasoning, Conic Section (Conic Section, Parabola, Parametric equation of parabola (Standard), Chord joining $t_1, t_2$ , Position of a point w.r.t. parabola, Position of a line w.r.t. parabola, Tangent, Normal, Length of tangent, Normal, Subtangent, Subnormal, Pair of Tangents, Director Circle, Chord of contact, Chord with middle point, Important properties of parabola, Definition, Properties i.e. focal property, General Ellipse, Auxiliary Circle, Parametric Equation, Equation chord joining $\alpha, \beta$ , Position of a point, Position of a line, Tangent, Normal)	Chemical Equilibrium, Gaseous State-2, Thermodynamics & Thermochemistry, Ionic Equilibrium (Acid base concept , Ostwald dilution law, Properties of water, pH calculation (SA, SB, mixture of SA, mixture of SB, mixture of SA & SB, WA, WB), pH calculation (WA, WB, mixture of WA & SA, Polyprotic WA & SA), Salt hydrolysis (WA + SB, WB + SA), Salt hydrolysis (WA + WB)	GOC-I, ABC-III, s-block elements, p-block elements (Boron Family & Compound of Boron, Aluminium, Carbon family)
10	28-Feb-18	MT	Full syllabus	Full Syllabus	Full Syllabus	Full Syllabus
11	07-Mar-18	AIOT	Full syllabus	Full Syllabus	Full Syllabus	Full Syllabus