

# JEE (Main) Postal All India Test Series Schedule & Syllabus

## Class XI

S.NO.	Dispatch Date	PHYSICS	MATHS	CHEMISTRY	
1	PT-1 10-07-2018	Mathematical Tools	Fundamentals of Mathematics-I (FOM-1)(Representation of sets, Types of sets, Subset, superset, power set, Operations on sets : $A \cup B, A \cap B, A - B, A \Delta B$ , Venn Diagrams, De-Morgans law, Cardinal No. problems, Method of Interval, Logarithm : Definition, Identity, Properties, Graph , Logarithm equation)	Introduction to Chemistry (ITC) (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), 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)	IUPAC-Nomenclature (Introduction of $\sigma$ and $\pi$ bond. Valencies of C, H, X, O & N. Degree of C, H & X and structure formula, Hybridization of carbon & DU of Hydrocarbon only, General formula, Bond Line formula, Structural formula and homologs, Classification of organic compound, aromatic compound (excluding huckel rule) bicyclic compound, spiro compound, General Rules of IUPAC Nomenclature , IUPAC-Nomenclature of Alkane & Cyclo alkane with simple side chain (Alkyl Radical), IUPAC-Nomenclature of Alkane & Cyclo alkane with complex alkyl radical , IUPAC-Nomenclature of Alkenes, alkynes, Cycloalkene and polyene )
2	CT-1 06-08-2018	Mathematical Tools, Rectilinear Motion, Projectile Motion, Relative Motion, Newton's laws 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))	Fundamentals of Mathematics-I ((Representation of sets, Types of sets, Subset, superset, power set, Operations on sets : $A \cup B, A \cap B, A - B, A \Delta B$ , Venn Diagrams, De-Morgans law, Cardinal No. problems, Method of Interval, Logarithm : Definition, Identity, Properties, Graph , Logarithm equation, Logarithmic Inequalities , Characteristic and mantissa , Anti log Log table ) Quadratic Equation	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, Photoelectric Effect & Blackbody radiation)	IUPAC Nomenclature, Structural Isomerism, Structural Identification
3	PT-2 03-09-2018	Mathematical Tools, Kinematics, NLM, Unit & Dimensions	FOM-I, (Logarithm equation, Logarithmic Inequalities , Characteristic and mantissa , Anti log Log table ) Quadratic Equation , Trigonometry	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, Photoelectric Effect & Blackbody radiation , Bohr atomic Model , Spectrum , Spectral Series , Heisenberg's uncertainty principle, de-Broglie wavelength , Quantum mechanical model of atom (introduction), Shapes of Orbitals, Node , Quantum numbers, Electronic configuration)	IUPAC Nomenclature, Structural Isomerism, Structural Identification, Periodic Table
4	CT-2 10-09-2018	Mathematical Tools, Rectilinear Motion, Projectile Motion, Relative Motion, NLM, Friction, Work, Power & Energy (WPE)	Fundamentals of Mathematics-I, Quadratic Equation, Trigonometry, Statistics, Solution of Triangle, Sequence & Series (Introduction (Finish sequence and infinite sequence) A.P. : General form, sum, Properties A.P., Arithmetic mean (A.M.) , G.P. $\rightarrow$ General term, sum, Properties of G.P. )	Introduction to Chemistry, Atomic Structure, Mole Concept (Concept of density, % Composition of a given compound by mass, % by mole, Minimum molecular mass determination , Empirical & Molecular Formula, Introduction of stoichiometry , Equation based calculations (Elementary level single equation or 2) , Concept of Limiting reagent)	Structural Isomerism, Structural Identification, Periodic Table & Basic Inorganic Nomenclature (BIN), ABC-1 (Alkane , Alkene, Alkyne , Benzene) & ABC-2 (Phenol, Aniline)
5	PT-3 01-10-2018	Kinematics, NLM, Unit & Dimensions, Friction, WPE, Circular Motion	Statistics, Solution of Triangle, Sequence & Series, Binomial Theorem, (Binomial expression and statement of binomial theorem, General term, Middle terms, Numerically greatest term in expansion of $(a + b)^n$ , Problem based on Remainder and divisibility, Standard expansion of $(x + y)^n, (x - y)^n, (x + y)^n \pm (x - y)^n$ )	Atomic Structure, Mole Concept	BIN, ABC-1, ABC-2 , Chemical Bonding (Types of bonding (Definitions of Ionic bond Covalent bond and Metallic bond ) and octet rule, Limitations of octet rule, Formal charge, Writing the lewis dot structure, Writing resonating structures, finding average bond order, Stability of resonating structures, Finding bond order in oxoanions and their acids, VBT, overlapping of orbital, Hybridisation, VSEPR)

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6	CT-3 22-10-2018	Mathematical Tools, Rectilinear Motion, Projectile Motion, Relative Motion, NLM, Friction, WPE, Circular Motion (CM), Centre of Mass (COM), Rigid Body Dynamics (RBD) (Definition and types of motion, Moment of Inertia)	FOM-I , Quadratic Equation, Trigonometry, Statistics, Solution of Triangle, Sequence & Series, Binomial Theorem, Permutation & Combination (P & C), (Fundamental principle of counting , Permutation and arrangements of objects , Combination ,Arrangement of object with few object same, Selection of one or more object ,Formation of group and distribution of objects, Circular arrangement, Multinomial in P and C)	Introduction to Chemistry, Atomic Structure, Mole concept, 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, Graham's law of diffusion & effusion , KTG , Maxwell's distribution of gas velocities )	IUPAC Nomenclature, Structural Isomerism, Structural Identification, Periodic Table, BIN, ABC-1 & 2, Chemical bonding (Types of bonding (Definitions of Ionic bond Covalent bond and Metallic bond) and octet rule, Limitations of octet rule, Formal charge, Writing the Lewis dot structure, Writing resonating structures ,finding average bond order , Stability of resonating structures, Finding bond order in oxoanions and their acids, VBT, overlapping of orbital, Hybridisation, VSEPR, Hybridization, Bond angle & Bond length / Bond Strength, Type of p bonding ( $p\pi-p\pi$ & $p\pi d\pi$ bond) & Coordinate bonding, Electron deficient bonding & Back bonding, Hydrogen Bonding)
7	CT-4 18-12-2018	Mathematical Tools, Rectilinear Motion, Projectile Motion, Relative Motion, NLM, Friction, Work, Power, Energy ,Circular Motion, Centre of Mass, Rigid Body Dynamics, Simple Harmonic Motion (SHM), Fluids, Surface Tension	Fundamentals of Mathematics-I, Quadratic Equation, Trigonometry, Statistics, Solution of Triangle, Sequence & Series, Binomial Theorem, P & C, Straight Line, Circle, Mathematical Reasoning	Introduction to Chemistry, Atomic Structure, Mole Concept, Gaseous state 1, Chemical Equilibrium, Gaseous State-2 (Introduction of Real gas ,Vanderwaal's Equation & Verification, Critical phenomena )Thermodynamics & Thermochemistry (Introduction & Definitions ,Reversible & Irreversible Process, Introduction of First Law ,Heat & Internal Energy ,Calculation of Work - Isothermal, Isochoric & Isobaric)	ABC-1 & 2, Chemical Bonding, ABC-3 (R-X, ROH), ABC-4 (Carbonyl, Carboxylic acid), General Organic Chemistry-1 (GOC-I) (Inductive effect Resonance, Resonance effect (Drawing Structure), Stability of Resonating structure, Mesomeric effect )
8	PT-4 08-01-2019	NLM, Friction, WPE, Circular Motion, COM, RBD, SHM, Fluid Mechanics, Surface Tension, Elasticity and viscosity	P & C, Straight Line, Circle, Fundamentals of Mathematics-II (Modulus function : Definition, Equations, Graphs of Modulus (Linear only), Equations involving Modulus, Inequalities involving modulus ,Graphs related to modulus, Graphical transformations of modulus, Irrational Inequalities, Signum Function, Dirichlet Function, Greatest Integer & Fractional part And Its Properties, Graphs of $[x]$ , $\{x\}$ ,Graphical transformations), Conic Section (Conic Section, Instruction of Parabola, Position of point w.r.t. parabola, ellipse, hyperbola, Instruction of Ellipse, Instruction of Hyperbola, Instruction of Rectangular Hyperbola, orthocentre, circumcentre	Gaseous State-1, Chemical Equilibrium, Gaseous State-2, Thermochemistry & Thermodynamics (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, Third law of thermodynamics & DG	GOC-I (Inductive effect Resonance, Resonance effect (Drawing Structure), Stability of Resonating structure, Mesomeric effect & SIR, Hyperconjugation, Application of I.R., M HC effects (Bond Length & Electron density on benzene ring), Aromaticity) & GOC-II (Carbanion and its stability, Carbocation and its stability, Carbocation and its rearrangement)
9	MT(Main) 21-01-2019	Full Syllabus	Full Syllabus	Full Syllabus	Full Syllabus
10	AIOT(Main) 11-02-2019	Full Syllabus	Full Syllabus	Full Syllabus	Full Syllabus