



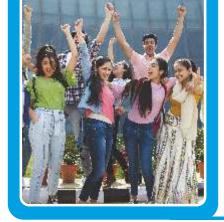


#### Online Test Schedule for Class XII Passed

Test	Date	Day	TOPIC
UT-01 (Main)	29-06-2024	Saturday	Physics: Physical World, Units & Measurement, Motion in a Straight Line, Motion in a Plane, Laws of Motion, Work, Energy and Power Chemistry: Structure of Atom, Some Basic Concepts of Chemistry, Classification of Elements and Periodicity in Properties, Chemical Bonding and Molecular Structure Thermodynamics Maths: Quadratic Equations, Complex Numbers, Sequences and Series, Binomial Theorem
PT-01 (Advanced) Paper-1 & 2	06-07-2024	Saturday	Physics: Physical World and Units & Measurement, Motion in a Straight Line, Motion in a Plane, Laws of Motion, Work, Energy and Power  Chemistry: Structure of Atom, Some Basic Concepts of Chemistry, Classification of Elements and Periodicity in Properties, Chemical Bonding and Molecular Structure, States of Matter Thermodynamics  Maths: Quadratic Equations, Complex Numbers, Sequences and Series, Binomial Theorem
UT-02 (Main)	13-07-2024	Saturday	Physics: System of Particles and Rotational Motion, Gravitation, Mechanical Properties of Solids, Mechanical Properties of Fluids  Chemistry: Equilibrium, Redox Reactions, Stoichiometry & (Volumetric Analysis), Solution, Electrochemistry, Chemical Kinetics and Nuclear Chemistry  Maths: Permutations and Combinations, Matrices, Determinants, Trigonometric Functions
PT-02 (Advanced) Paper-1 & 2	27-07-2024	Saturday	Physics: System of Particles and Rotational Motion, Gravitation, Mechanical Properties of Solids, Mechanical Properties of Fluids  Chemistry: Equilibrium, Redox Reactions, Stoichiometry & (Volumetric Analysis)*, Solution The Solid State, Solution, Electrochemistry, Chemical Kinetics and Nuclear Chemistry, Surface Chemistry  Maths: Permutations and Combinations, Matrices, Determinants, Trigonometric Functions
UT-03 (Main)	10-08-2024	Saturday	Physics: Thermal Properties of Matter, Thermodynamics, Kinetic Theory of Gases, Oscillations, Waves Chemistry: Organic Chemistry - Some Basic Principles and Techniques, Hydrocarbons, Haloalkanes and Haloarenes Maths: Inverse Trigonometric Functions, Straight Lines (Including Pair of Straight Lines), Conic Sections-I (Circle), Conic Sections-II (Parabola, Ellipse, Hyperbola)
PT-03 (Advanced) Paper-1 & 2	24-08-2024	Saturday	Physics: Thermal Properties of Matter, Thermodynamics, Kinetic Theory of Gases, Oscillations, Waves Chemistry: Organic Chemistry - Some Basic Principles and Techniques, Hydrocarbons, Haloalkanes and Haloarenes Maths: Inverse Trigonometric Functions, Straight Lines (Including Pair of Straight Lines), Conic Sections-I (Circle), Conic Sections-II (Parabola, Ellipse, Hyperbola)
UT-04 (Main)	07-09-2024	Saturday	Physics: Electric Charges and Field, Electrostatic Potential and Capacitance, Current Electricity, Moving Charges & Magnetism  Chemistry: Alcohols, Phenols and Ethers, Aldehydes, Ketones and Carboxylic Acids, Amines, Biomolecules, Redox Reactions, Stoichiometry & (Volumetric Analysis)  Maths: Basics of Mathematics (Sets), Relations and Functions, Limits and Derivatives, Continuity and Differentiability, Applications of Derivatives









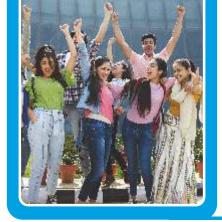


#### Online Test Schedule for Class XII Passed

Test	Date	Day	TOPIC
PT-04 (Advanced) Paper-1 & 2	14-09-2024	Saturday	Physics: Electric Charges and Field, Electrostatic Potential and Capacitance, Current Electricity, Moving Charges & Magnetism  Chemistry: Alcohols, Phenols and Ethers, Aldehydes, Ketones and Carboxylic Acids, Amines, Biomolecules, Polymers, Chemistry in Everyday life, Redox Reactions, Stoichiometry & (Volumetric Analysis), Environmental Chemistry  Maths: Basics of Mathematics (Sets), Relations and Functions, Limits and Derivatives, Continuity and Differentiability, Applications of Derivatives
UT-05 (Main)	28-09-2024	Saturday	Physics: Magnetism and Matter, Electromagnetic Induction, Alternating Current, Electromagnetic Waves, Ray Optics and Optical Instruments  Chemistry: The d & f-Block Elements, Coordination Compounds, Principles Related to Practical Chemistry including Qualitative Analysis  Maths: Indefinite Integration, Definite Integration, Applications of Integrals, Differential Equations
PT-05 (Advanced) Paper-1 & 2	11-10-2024	Friday	Physics: Electromagnetic Induction, Alternating Current, Electromagnetic Waves, Ray Optics and Optical Instruments  Chemistry: The d & f-Block Elements, Coordination Compounds, Principles Related to Practical Chemistry including Qualitative Analysis, General Principles & Processes of Isolation of Elements  Maths: Indefinite Integration, Definite Integration, Applications of Integrals, Differential Equations
UT-06 (Main)	26-10-2024	Saturday	Physics: Wave Optics, Dual Nature of Radiation and Matter, Atoms, Nuclei, Semiconductor Electronics: Materials, Devices and Simple Circuits, Experimental Physics Chemistry: The p-Block Elements (Group 13-18) Maths: Vector Algebra, Three Dimensional Geometry, Probability, Statistics
PT-06 (Advanced) Paper-1 & 2	16-11-2024	Saturday	Physics: Wave Optics, Dual Nature of Radiation and Matter, Atoms, Nuclei, Experimental Physics Chemistry: Hydrogen, The s-Block Elements, The p-Block Elements (Group 13-14), The p-Block Elements (Group 15-18) Maths: Vector Algebra, Three Dimensional Geometry, Probability, Statistics
Mock Test-1	04-01-2025	Saturday	Mock Test on JEE (Main)
Mock Test-2	14-01-2025	Tuesday	Mock Test on JEE (Advanced) (Paper-1 & 2)
Mock Test-3	18-01-2025	Saturday	Mock Test on JEE (Main)
Mock Test-4	25-01-2025	Saturday	Mock Test on JEE (Advanced) (Paper-1 & 2)







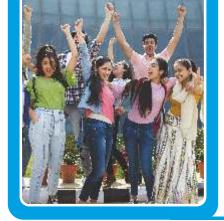




Sr.No.	Test Name	Test Syllabus - Class XI
1	Physics Quiz - 1	Units & Measurement: Dimensions, Errors
2	Chemistry Quiz - 1	<b>Some Basic Concepts of Chemistry:</b> Concentration Terms, Law of Equivalence, Significant Figures, Mole Concept and Stoichiometry
3	Mathematics Quiz - 1	Basics of Mathematics: Sets, Wavy Curve Method
4	Physics Quiz - 2	Kinematics: Displacement, Velocity & acceleration, Kinematics equations and Graphs
5	Chemistry Quiz - 2	<b>Some Basic Concepts of Chemistry:</b> Stoichiometry, Average Molar Mass, Empirical and Molecular Formula
6	Mathematics Quiz - 2	Basics of Mathematics: Wavy Curve Method, Set
7	Physics Quiz - 3	Kinematics: Motion with constant Acceleration, Motion in a plane (Projectile motion)
8	Chemistry Quiz - 3	<b>Structure of atom:</b> Quantum Mechanical Model, Quantum Numbers, Fundamental Particles, Rutherford Model, Bohr Model, Hydrogen Spectrum
9	Mathematics Quiz - 3	Relations and Functions: Relations, Domain and Range, Cartesian Product of sets
10	Physics Quiz - 4	Kinematics: Relative Motion and plane Motion, Circular Motion
11	Chemistry Quiz - 4	Structure of atom: Bohr Model and Hydrogen Spectrum; Atomic Structure: Orbital, Shapes, Nodes
12	Mathematics Quiz - 4	Relations and Functions: Relations, Domain, Range,
13	Physics Quiz - 5	Laws of Motion: Equilibrium/Lami's Theorem/FBD, Newton's law of motion, linear momentum
14	Chemistry Quiz - 5	<b>Atomic Structure:</b> de-Broglie Dual Nature of Matter and Heisenberg Uncertainty Principle, Planck Quantum Theory and Photoelectric Effect
15	Mathematics Quiz - 5	Relations and Function: Domain, Range, Different types of functions, Functional Equation
16	Physics Quiz - 6	Laws of Motion: Equation for acceleration (Pulley's, inclined problems), Constraint Relationships







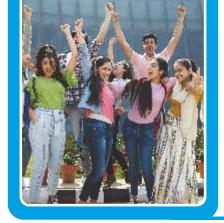




Sr.No.	Test Name	Test Syllabus - Class XI
17	Chemistry Quiz - 6	Classification of Elements and Periodicity in Properties: Characteristics of Periodic Table, Properties of Elements and their Compounds, Atomic and Ionic Radii
18	Mathematics Quiz - 6	Relations and Functions: Range, Different types of functions, Domain, Range
19	Physics Quiz - 7	Laws of Motion: Friction, Pseudo Force
20	Chemistry Quiz - 7	Classification of Elements and Periodicity in Properties: Ionisation Energy / Ionisation Potential, Electron Affinity, Electronegativity
21	Mathematics Quiz - 7	<b>Trignometric function-I:</b> Trigonometric Ratios of allied angles, Transformation formulae, Trigonometric Ratio of allied angles; <b>Trigonometric Ratios and identities:</b> Domain and Range of Trigonometric Functions, Transformation formulae
22	Physics Quiz - 8	Laws of Motion: Dynamics of Circular Motion
23	Chemistry Quiz - 8	Chemical Bonding and Molecular Structure: Types of Chemical Bond, Lewis Theory, Formal Charge, Bond Parameters
24	Mathematics Quiz - 8	<b>Trigonometric Function-I:</b> Trigonometric equation, Trigonometric ratios; <b>Trigonometric Ratios and Identities:</b> Transformation formulae; <b>Relations and Functions, Trigonometric Function-I:</b> Graphs, Transformation formulae, Graphical Transformations, Range of Trigonometric Functions
25	Physics Quiz - 9	Work, Energy and Power: Work done, Power, Work-Energy Theorem
26	Chemistry Quiz - 9	Chemical Bonding and Molecular Structure: Fajan's Rule, Dipole Moment and Resonance
27	Mathematics Quiz - 9	<b>Trigonometric Function-I, Quadratic Equation:</b> General Solution, Sum and Product of Roots, Nature of Roots; <b>Trigonometric Function-I:</b> Range of Trigonometric Functions, General Solution of Trigonometric Equation
28	Physics Quiz - 10	Work, Energy and Power: Potential energy, Spring & Spring P.E.
29	Chemistry Quiz - 10	Chemical Bonding and Molecular Structure: VBT and VSEPR Theory, Hybridisation
30	Mathematics Quiz - 10	<b>Trigonometric Function-I, Quadratic Equation:</b> General Solution, Nature of Roots; <b>Trigonometric Function-I:</b> General Solution of Trigonometric Equations; <b>Quadratic Equation:</b> Nature of Roots, Location of Roots
31	Physics Quiz - 11	Work, Energy and Power: Motion in vertical circle, Conservation of Mechanical energy







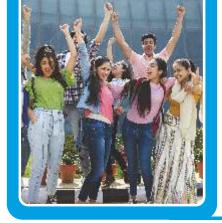




Sr.No.	Test Name	Test Syllabus - Class XI
32	Chemistry Quiz - 11	Chemical Bonding and Molecular Structure: Hybridisation, MOT
33	Mathematics Quiz - 11	<b>Quadratic Equation:</b> Range of Quadratic Expression, Common Roots, Location of Roots Transformation of Equations, Analysis of Cubic Equation, Common Roots, Transformation of Equation, Quadratic Equation in two Variables; <b>Trigonometric Function-I, Quadratic Equation:</b> General Solution of Trigonometric Equations, Sum and Product of Roots
34	Physics Quiz - 12	Work, Energy and Power: Conservation of linear momentum (collision), Oblique collision
35	Chemistry Quiz - 12	Chemical Bonding and Molecular Structure: MOT and Hydrogen Bonding; States of Matter: Gaseous State and Ideal Gas Laws
36	Mathematics Quiz - 12	<b>Quadratic Equation:</b> Sum and Product of Roots, Formation of Equation, Location of Roots, Sum and Product of Roots; <b>Complex Numbers:</b> Iota, Properties of Modulus; <b>Quadratic Equation, Complex Number:</b> Nature of Roots, Location of Roots, Properties of Modulus
37	Physics Quiz - 13	<b>System of Particles and rotational motion:</b> Center of Mass (position, velocity, acceleration & shifting), Angular velocity and Angular acceleration
38	Chemistry Quiz - 13	States of Matter: Kinetic Theory of Gases, Real Gas and Compressibility Factor
39	Mathematics Quiz - 13	Complex Number, Linear Inequality: Algebra of a Complex Number, Modulus of a Complex Number, Linear Inequalities; Complex Number: Properties of Modulus of a Complex Number; Sequence and Series, Complex Number: Arithmetic Progression, Algebra of Complex Numbers, Modulus and Argument of a Complex Number; Quadratic Equation, Complex Number: Sum and Product of Roots, Properties of Modulus, Euler Form
40	Physics Quiz - 14	System of Particles and rotational motion: Equilibrium, Moment of inertia (Theorem)
41	Chemistry Quiz - 14	States of Matter: Grahams Law of Diffusion and Daltons Law of Partial Pressure, Eudiometry
42	Mathematics Quiz - 14	Complex Number, Sequence and Series: Properties of Modulus and Argument, Geometric Progression, Arithmetic Progression, Arithmetic Mean; Sequence and Series: Harmonic Progression, Arithmetico-Geometric Progression, Telescopic Series, Sum of n Terms of G.P., Exponential and Logarithmic Series
43	Physics Quiz - 15	<b>System of Particles and rotational motion:</b> Dynamic of rotational motion, Conservation of energy (Rotational kinetic Energy)
44	Chemistry Quiz - 15	States of Matter: Critical Constants, Liquifaction of Gases Vapour Pressure, Surface Tension and Viscosity; <b>Thermodynamics:</b> First Law of Thermodynamics







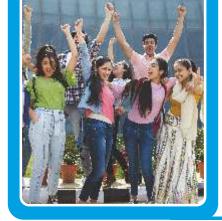




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45	Mathematics Quiz - 15	<b>Sequence and Series:</b> Special Series, Geometric Progression, Telescope Series, Exponential and Logarithmic Series, Arithmetic Progression, Harmonic Progression, Series; Logarithm, <b>Binomial Theorem:</b> Logarithm, General Term
46	Physics Quiz - 16	System of Particles and rotational motion: Rolling motion, Torque and angular moment
47	Chemistry Quiz - 16	Thermodynamics: Themochemistry, Second Law of Thermodynamics
48	Mathematics Quiz - 16	<b>Binomial Theorem:</b> General Term, Middle Term, Numerically Greatest Term, Binomial Theorem for any Index; <b>Sequence and Series:</b> Sum of Special Series, Telescopic Series, Properties of AM, GM, HM
49	Physics Quiz - 17	System of Particles and rotational motion: Conservation of angular momentum
50	Chemistry Quiz - 17	Thermodynamics: Gibb's Free Energy; Equilibrium: Chemical Equilibrium
51	Mathematics Quiz - 17	<b>Binomial Theorem:</b> General Term, Binomial Series, Multinomial Theorem; <b>Sequence and Series, Binomial Theorem:</b> Properties of AM, GM, HM, General Term, Binomial Series
52	Physics Quiz - 18	Gravitation: Gravitation field, Acceleration due to Gravity
53	Chemistry Quiz - 18	<b>Equilibrium:</b> Le-Chatelier's Principle, pH of Weak Acid, Bases
54	Mathematics Quiz - 18	<b>Binomial Theorem, Permutation and Combination:</b> General Term, Fundamental Principle of Counting, Permutation of Distinct Objects, Binomial Series, Permutation under certain Restriction, Combination, Division of Objects into Groups, Combination; <b>Binomial Theorem:</b> Binomial Expansion, Binomial Series
55	Physics Quiz - 19	Gravitation: Gravitation field, Gravitation potential energy
56	Chemistry Quiz - 19	Equilibrium: Salt Hydrolysis and Buffer Solution, Solubility Product
57	Mathematics Quiz - 19	<b>Permutation and Combination:</b> Combination, Divisors, Rank, Number of Integral Solutions of an Equation
58	Physics Quiz - 20	<b>Gravitation:</b> Conservation of energy, Kepler's Law (Escape speed/Orbital speed)
59	Chemistry Quiz - 20	<b>Redox Reactions:</b> Oxidation Number and Balancing of Redox Reactions, Titrations and Volume Strength of $\rm H_2O_2$
60	Mathematics Quiz - 20	<b>Permutation and Combination:</b> Multinomial Theorem, Power of Prime p in n!, Number of Integral Solutions, Division of Objects into Groups; <b>Straight Line:</b> Angle Bisector, Family of Lines, Shifting of Origin, Image of a Point







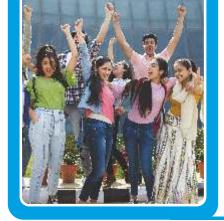




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61	Physics Quiz - 21	Gravitation: Kepler's Law
62	Chemistry Quiz - 21	<b>Hydrogen:</b> Properties of Hydrogen, Properties of H <sub>2</sub> O <sub>2</sub> and Water
63	Mathematics Quiz - 21	<b>Straight Line:</b> Pair of Straight Lines, Rotation of Axes, Homogenisation, Distance of a Point from a Line, Pair of Straight Lines; <b>Straight Line, Circle:</b> Pair of Straight Lines, Locus, Line and Circle
64	Physics Quiz - 22	Mechanical Properties of Solids: Mechanical Properties of Solids, Hooke's Law and Elasticity
65	Chemistry Quiz - 22	The s-Block Elements: Properties of Alkali Metals, Properties of Alkaline Earth Metals
66	Mathematics Quiz - 22	<b>Circle:</b> Tangent to a circle, Equation of a circle, Length of Intercept on Coordinate Axes, Radical Axis, Family of Circles, Intercepts on coordinate Axes, Equation of Circle, Relative Position of Two Circles; <b>Straight Line:</b> Family of Lines, Equations of Straight Lines
67	Physics Quiz - 23	<b>Mechanical Properties of Fluids:</b> Pressure (Pascal law)/Archimedes Principle, Archimedes' Principal (Buoyant Archimedes' Force), Accelerated Frame
68	Chemistry Quiz - 23	The p-Block Elements: Properties of Group 13 Elements, Properties of Group 14 Elements
69	Mathematics Quiz - 23	Conic Section-I: Orthogonality of Two Circles, Pair of Tangents, Radical Axis, Family of Circles, Pair of Tangents, Chord bisected at a given Point, Common Tangent, Pair of Tangents, Chord of Contact; Conic Section (I & II): Tangents to Parabola, Chord bisected at given Point
70	Physics Quiz - 24	Mechanical Properties of Fluids: Application of Bernoullie's Theorem, Viscosity/Surface Tension
71	Chemistry Quiz - 24	Organic Chemistry: Some Basic Principles and Techniques: Introduction of Organic Compounds and IUPAC Naming, Structural Isomerism
72	Mathematics Quiz - 24	Conic Section (I & II): Director Circle of a Circle, Standard Equation of a Parabola, Tangents to Parabola; Conic Section–II: Standard Equation of Parabola, Tangent to Parabola, Intersection of Parabola & Circle, Equation of Tangent to Parabola, Equation of Normal to Parabola, Chord of Contact, Normal to Parabola, Tangent to Ellipse, Pair of Tangents to Ellipse, Normal to Hyperbola
73	Physics Quiz - 25	Mechanical Properties of Fluids: Fluids
74	Chemistry Quiz - 25	Organic Chemistry: Some Basic Principles and Techniques: Stereoisomerism, Electronic Displacement Effects in Covalent Bonds and Application
75	Mathematics Quiz - 25	Conic Section-II: Standard Equation of Parabola, Standard Equation of Ellipse, Normal to Parabola, Locus Problem, Hyperbola, Tangents and Normals to Ellipse & Hyperbola; Conic Section-II, straight lines: Orthogonality, Angle bisectors







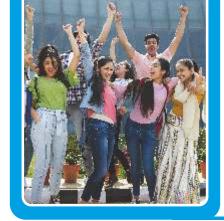




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76	Physics Quiz - 26	SHM: Equation of SHM and related term, Simple/Physical Pendulum
77	Chemistry Quiz - 26	Organic Chemistry: Some Basic Principles and Techniques: Aromaticity, Purification techniques, Quantitative and Qualitative Estimation
78	Mathematics Quiz - 26	<b>Conic Section–II:</b> Standard Equation of Hyperbola, Chord of an Ellipse, Director Circle of Ellipse, Asymptote of a Hyperbola, Rectangular Hyperbola, Ellipse, Hyperbola, Rectangular Hyperbola
79	Physics Quiz - 27	SHM: Time Period of SHM(Linear), Combination of Springs; Oscillation: Energy in SHM
80	Chemistry Quiz - 27	Hydrocarbons: Preparation and Properties of Alkanes, Preparation and Properties of Alkenes
81	Mathematics Quiz - 27	Complex Number & Quadratic Equation: Square Root of Complex Number, Polar Form, De-Moivre's Theorem; Conic Section-II: Hyperbola, Ellipse; Complex Number: n <sup>th</sup> Root of Unity, Polar form, Demoivre's Theorem Geometry of Complex Number, Rotation, Geometry of Complex Numbers
82	Physics Quiz - 28	P.V.T (graphs)/ Ideal gas equation: Thermodynamics process; Thermal Properties of Matter: Kinetic Theory of gases
83	Chemistry Quiz - 28	Hydrocarbons: Preparation and Properties of Alkynes, Electrophilic Aromatic Substitution
84	Mathematics Quiz - 28	<b>Complex Number:</b> Rotation of complex numbers Roots of unity, Geometry of Complex Numbers, n <sup>th</sup> Root of Unity, Rotation of Complex Numbers, Rotation
85	Physics Quiz - 29	Thermal Properties of Matter: Heat radiation (Wien's displacement), Calorimetry
86	Chemistry Quiz - 29	Environmental Chemistry: Air Pollutants, Water Pollutants
87	Mathematics Quiz - 29	<b>Complex Number:</b> Geometry of Complex Number; <b>Complex Number Limits:</b> Rotation, Geometry of Complex Numbers, One-sided Limits; Limits: Evaluation of 0/0 form, ¥/¥, ¥, -¥, L-Hospital Rule, <b>Complex Number, Derivates, 3-Dimensional Geometry:</b> n <sup>th</sup> Roots of Unity, Derivatives of Higher Order, Direction Cosines
88	Physics Quiz - 30	Thermodynamics: P.V.T (graphs)/ Ideal gas equation/ Thermodynamics process
89	Mathematics Quiz - 30	<b>Limits &amp; Derivatives:</b> Evaluation of Limits, Differentiation; Limits, <b>Trigonometry-II:</b> Infinite Limits, Trigonometric Ratios of Submultiple Angles; <b>Complex Number, Trigonometric Functions:</b> Sum of Trigonometric series, De-Moivre's Theorem, Trigonometric Ratios of Multiple angles; <b>Probability:</b> Classical Definition of Probability
90	Physics Quiz - 31	Thermodynamics: P.V.T (graphs)/ Ideal gas equation/ Thermodynamics process; Kinetic Theory: Kinetic Theory of gases





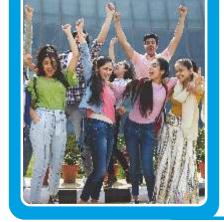






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91	Mathematics Quiz - 31	<b>Probability, Trigonometric Ratios, Trigonometric Equation:</b> Permutation & Combination based Probability, Trigonometric Equations, Transformation Formulae; <b>Trigonometric Equations:</b> Different types of Trigonometric Equations; <b>Complex Numbers, Trigonometric Functions:</b> Trigonometric Equations, Algebra of Complex Number; <b>Solution of Triangles:</b> Projection Rule, Ex-radii, Length of Angle Bisectors
92	Physics Quiz - 32	<b>Waves and Sound:</b> Wave equation (sinusoidal progressive wave), Interference, Intensity & Power transmitted (string)
93	Mathematics Quiz - 32	<b>Trigonometric Functions:</b> Properties of Triangle; <b>Trigonometric Equations, Solutions of Triangles:</b> Equations Involving more than one Variables, Half Angle Formulae
94	Physics Quiz - 33	<b>Waves and Sound:</b> Interference, Intensity & Power transmitted (string), Standing wave & resonance in string
95	Physics Quiz - 34	Waves and Sound: Resonance in air columns; Waves: Doppler's effect
96	Physics Quiz - 35	Waves and Sound: Beats





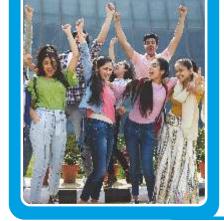




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1	Physics Quiz - 1	Electric charges and field: Electric force, Electric field, Field Lines
2	Chemistry Quiz - 1	<b>Solid State:</b> Unit Cell, Formula of Unit Cell, Lattice Parameters (Edge Length, Density, Packing Fraction, Co-ordination Number)
3	Mathematics Quiz - 1	Relations and Functions: Relations, Domain and Range
4	Physics Quiz - 2	Electric charges and field: Electric flux and Gauss Law, Electric Dipole
5	Chemistry Quiz - 2	<b>Solid State:</b> Lattice Parameters (Edge Length, Density, Packing Fraction, Co-ordination Number), Structure of Solids, Defects, Properties of Solids
6	Mathematics Quiz - 2	Relations and Functions: Relations, Domain and Range
7	Physics Quiz - 3	Electric potential and Capacitance: Electric potential, Electrostatic Potential Energy
8	Chemistry Quiz - 3	<b>Solution:</b> Colligative Properties, Raoult's Law (Ideal and Non-ideal Solutions), Concentration Terms, Henry's Law, Miscellaneous
9	Mathematics Quiz - 3	<b>Relations and Functions:</b> Range, Domain, Types of Functions, Transformation of Function; <b>Functions:</b> Even/Odd Function, Periodic Function
10	Physics Quiz - 4	<b>Electrostatics:</b> Conductors, Capacitor (charge, energy, force redistribution), Electrostatics Potential and capacitance capacitor
11	Chemistry Quiz - 4	Electrochemistry: Applications of Electrode Potential, Electrochemical Cell and Nernst Equation
12	Mathematics Quiz - 4	Inverse Trigonometric Function: Principal Value; <b>Function, Inverse Trigonometric Function:</b> Functional Equation, Principal Value, Different types of functions
13	Physics Quiz - 5	Current Electricity: Combination of resistances, Electric energy & power
14	Chemistry Quiz - 5	Electrochemistry: Electrolysis, Conductance
15	Mathematics Quiz - 5	Functions, Inverse Trigonometric Functions: Properties of Inverse Trigonometric Function, Different Types of Functions, Principal Value, Properties of I.T.F.
16	Physics Quiz - 6	Current Electricity: Ohm's law, Kirchoff Rule







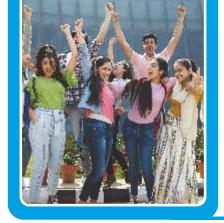




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17	Chemistry Quiz - 6	Electrochemistry: Conductance, Metal Insoluble Electrodes, Cells
18	Mathematics Quiz - 6	<b>Inverse Trigonometric Functions, Matrices and Determinants:</b> Properties of I.T.F., Properties of Transpose, Inter Conversions, Properties of I.T.F., Properties of Inverse Trigonometric Functions
19	Physics Quiz - 7	Current Electricity: Measuring instruments, Combination of cells
20	Chemistry Quiz - 7	Chemical Kinetics and Nuclear Chemistry: Average and Instantaneous Rate of Reaction and Law of Mass Action; Chemical Kinetics: Integrated Rate Law, Initial Rate Law Method, Graphical Representation and Order of Reaction from Reaction Mechanism
21	Mathematics Quiz - 7	<b>Matrices and Determinants:</b> Properties of Determinants, Properties of Matrix Multiplication, Properties of I.T.F.; <b>Inverse Trigonometric Functions:</b> Equations Involving I.T.F.
22	Physics Quiz - 8	Current Electricity: RC Circuit, RC Circuit-1
23	Chemistry Quiz - 8	<b>Chemical Kinetics:</b> Order of Reaction and Molecularity, Numericals based on First Order Reaction, Parallel Reactions
24	Mathematics Quiz - 8	Matrices and Determinants, Continuity and Differentiability: Cramer's rule, Continuity, Properties of Determinant, Cramer's Rule, Limits; Matrices and Determinants, Limits: LHL and RHL, Properties of Determinants
25	Physics Quiz - 9	<b>Magnetism:</b> Motion of charge particle in magnetic and electric field, Motion of charge particle in magnetic and electric field (1)
26	Chemistry Quiz - 9	Chemical Kinetics: Arrhenius theory, Nuclear Chemistry
27	Mathematics Quiz - 9	<b>Differentiation:</b> Differentiation of Implicit Function, Differentiation of Parametric Function, Differentiation of Inverse Trigonometric Function, Derivative of Inverse Trigonometric Function, Derivative of Implication Function, Rolle's Theorem, Logarithmic Differentiation, Second Order Derivative; <b>Continuity and Differentiability:</b> Lagrange's Mean Value Theorem, Derivative of Composite Function, Continuity
28	Physics Quiz - 10	<b>Magnetism:</b> Magnetic field – Biot–Savarat's law and its application (1), Magnetic field – Biot–Savart's law and its application (2)
29	Chemistry Quiz - 10	Surface Chemistry: Adsorption, Colloids and Properties of Colloids
30	Mathematics Quiz - 10	Continuity and Differentiability, Differentiation: Lagrange's mean value theorem, Second Order Derivatives, Logarithmic Differentiation, Derivative of Higher Order; Continuity and Differentiability, Application of Derivative: Differentiability, Tangent and Normal, Monotonicity
31	Physics Quiz - 11	Magnetism: Magnetic force on current carrying wire, Moment, Magnetic dipole and Bar magnet







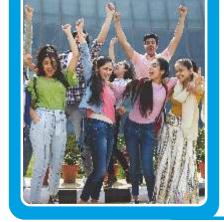




Sr.No.	Test Name	Test Syllabus - Class XII
32	Chemistry Quiz - 11	General Principle and Process of Isolation of Elements: Important Ores and Metallurgical Process, Extraction of important metals, purification and refining process
33	Mathematics Quiz - 11	<b>Differentiation, Application of Derivative:</b> Differentiation of Inverse Trigonometric Function, Monotonicity, Differentiation of Explicit Function, Maxima and Minima; <b>Continuity and Differentiability, Application of Derivative:</b> Differentiability, Monotonicity; <b>Application of Derivative:</b> Tangent and Normal
34	Physics Quiz - 12	Magnetism: Magnetic Effect of current, Ampere circuital law, Moving coil galvanometer
35	Chemistry Quiz - 12	The p-Block Elements: Properties of group 15 & 16 Elements
36	Mathematics Quiz - 12	<b>Application of Derivative:</b> Monotonicity, Maxima and Minima, Critical Point, Problems based on Application of Maxima and Minima; <b>Indefinite Integration:</b> Integration by Substitution
37	Physics Quiz - 13	Electromagnetic Induction: Faradays Law of EMI, Induced current, Motional E.M.F.
38	Chemistry Quiz - 13	The p-Block Elements: Properties of group 17 & 18 Elements
39	Mathematics Quiz - 13	<b>Application of Derivative, Indefinite Integration:</b> Maxima and Minima, Practical Problems Based on Maxima and Minima, Basic Integration; <b>Indefinite Integration:</b> Basic Integration, Integration by Substitution
40	Physics Quiz - 14	Electromagnetic Induction: Motional E.M.F., Induced Electric field
41	Chemistry Quiz - 14	<b>The d- and f-Block Elements:</b> General characteristics of transition metals, General Characteristics of Lanthanoids and Actinoids; <b>The d- and f-Block:</b> Preparation and properties of K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub> and KMnO <sub>4</sub>
42	Mathematics Quiz - 14	<b>Indefinite Integration, Definite Integration:</b> Basic Integration, Integration by Parts, Basic Integration, Integration by Substitution
43	Physics Quiz - 15	Electromagnetic Induction: Self and mutual Inductance and Inductor, LR Circuit
44	Chemistry Quiz - 15	<b>Co-ordination Compounds:</b> Coordination Compounds and Werner Theory, IUPAC Naming of Coordination Compounds
45	Mathematics Quiz - 15	<b>Indefinite Integration:</b> Integration by Parts, Integration by Partial Fraction, Integration of Irrational Function, Integration by Substitution; <b>Definite Integration:</b> Properties of Definite Integration
46	Physics Quiz - 16	Electromagnetic Induction: LR Circuit; Altermatic Current: Simple AC Circuit
47	Chemistry Quiz - 16	Co-ordination Compounds: Isomerism, VBT, CFT + Metal Carbonyls







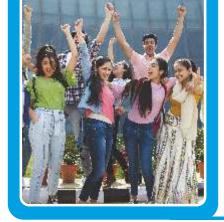




Sr.No.	Test Name	Test Syllabus - Class XII			
48	Mathematics Quiz - 16	Indefinite Integration: Integration by Substitution, Integration by Partial Fraction; Definite Integration: Properties of Definite Integration			
49	Physics Quiz - 17	Altermatic Current: Simple AC Circuit, LC Oscillation			
50	Chemistry Quiz - 17	Qualitative Analysis: Analysis of Acidic Radicals, Analysis of Basic Radicals			
51	Mathematics Quiz - 17	<b>Definite Integration:</b> Properties of Definite Integration, Newton Leibniz Formula; <b>Indefinite Integration, Area Under Curve:</b> Integration by Substitution, Area Bounded between Two Curves; <b>Definite Integration, Area Under Curves:</b> Reduction Formulae, Area Under Curves			
52	Physics Quiz - 18	Ray optics & Optical Instruments: Plane Mirror & Spherical Mirror			
53	Chemistry Quiz - 18	Haloalkanes and Haloarenes: Preparation of Haloalkanes, Optical activity and Stereoisomerism			
54	Mathematics Quiz - 18	<b>Definite Integration:</b> Properties of Definite Integration, Newton Leibniz Formula; <b>Area Under Curve, Differential Equation:</b> Area Under Simple Curve, Solution by Inspection			
55	Physics Quiz - 19	Ray optics & Optical Instruments: Spherical Mirror, Refraction & T.I.R.			
56	Chemistry Quiz - 19	Haloalkanes and Haloarenes: Nucleophilic Substitution Reaction, Elimination Reaction, Preparation of Haloarenes and their Properties			
57	Mathematics Quiz - 19	<b>Definite Integration:</b> Properties of Definite Integration, Limit as a Sum, Definite Integration Using Indefinite Integration Method; <b>Differential Equation:</b> Variable Separable, Homogenous Equations, Linear Differential Equation			
58	Physics Quiz - 20	Ray optics & Optical Instruments: Refraction & T.I.R.			
59	Chemistry Quiz - 20	Alcohol, Phenol and Ether: Preparation of Alcohols			
60	Mathematics Quiz - 20	<b>Differential Equation:</b> Solution by Inspection, Homogenous Equations, Area Between Two Curves, Order and Degree of Differential Equation, Linear Differential Equation; <b>Area Under Curve, Differential Equation:</b> Area Under Curve, Formation of Differential Equation; <b>Vectors:</b> Vector Product; Area Under Curve			
61	Physics Quiz - 21	Ray optics & Optical Instruments: Refraction & T.I.R.			
62	Chemistry Quiz - 21	<b>Alcohol, Phenol and Ether:</b> Preparation and properties of Phenol, Preparation and Properties of Ethers and Epoxide			







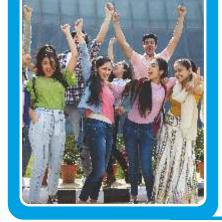




Sr.No.	Test Name	Test Syllabus – Class XII		
63	Mathematics Quiz - 21	<b>Area Under Curve; Differential Equation:</b> Area Between Two Curves, Order and Degree of Differential Equation, Area Under Curve; <b>Differential Equation, Vectors:</b> Linear Differential Equation, Solution by Direct Inspection, Scalar Product, Scalar Triple Product, Vector Equation		
64	Physics Quiz - 22	Ray Optics and Optical Instruments: Thin Lenses, Combination of Lenses and Mirror		
65	Chemistry Quiz - 22	<b>Aldehydes, Ketones and Carbonylic Acid:</b> Preparation of aldehyde and Ketones, Nucleophilic Addition Reaction of Carbonyl Compounds		
66	Mathematics Quiz - 22	<b>Differential Equation, Vectors, Three Dimensional Geometry:</b> Formation of Differential Equation, Variable Separable, Homogenous Differential Equation, Linear Differential Equation, Reciprocal System of Vectors, Vector Product, Vector Triple Product, A Line and a Point		
67	Physics Quiz - 23	Ray Optics and Optical Instruments: Combination of Lenses and Mirror, Thin Lenses		
68	Chemistry Quiz - 23	<b>Aldehydes, Ketones and Carboxylic Acid:</b> Oxidation and Reduction Reaction, Reaction Due to Alpha Hydrogen and Cannizzaro Reaction, Preparation and Properties of Carboxylic Acid and its Derivatives		
69	Mathematics Quiz - 23	<b>Differential Equation:</b> Variable Separable, Linear Differential Equation, Solution by Direct Inspection, Linear Differential Equation, Solution by Direct Inspection, Orthogonal Trajectory; <b>Vectors, Three Dimensional Geometry:</b> Scalar Triple Product, A Line and a Point, Plane		
70	Physics Quiz - 24	Ray Optics and Optical Instruments: Thin lenses and Prism		
71	Chemistry Quiz - 24	Amines: Preparation of Amines, Properties of Aromatic Amines and Diazonium Salt		
72	Mathematics Quiz - 24	<b>Differential Equation, Vectors:</b> Linear Differential Equation, Scalar Product, Position Vector, Algebra of Vectors, Scalar Triple Product; <b>Three Dimensional Geometry:</b> A Plane and a Point, A Line and a Plane, Two Lines		
73	Physics Quiz - 25	Optics: Optical Instruments; Ray Optics and Optical Instruments: Ray Optics		
74	Chemistry Quiz - 25	<b>Biomolecules:</b> Properties of Carbohydrates, Properties of Amino Acids and Protiens, Vitamins, Enzymes and Nucleic Acids		
75	Mathematics Quiz - 25	<b>Vector:</b> Cross Product, Scalar Product, Scalar Triple Product, Vector Triple Product, Application of Vector in Geometry; <b>Three Dimensional Geometry:</b> Plane, Two Lines; <b>Probability:</b> Algebra of Events, Baye's Theorem		
76	Physics Quiz - 26	Wave Optics: Huygens Principle / Interference, YDSE		











Sr.No.	Test Name	Test Syllabus - Class XII			
77	Chemistry Quiz - 26	<b>Polymers:</b> Polymers; <b>Chemistry in Everyday Life:</b> Drugs and their Classification Antiseptic and Disinfectants, Artificial Sweetening Agents Soaps, Synthetic Detergents			
78	Mathematics Quiz - 26	<b>Vectors, Three Dimensional Geometry:</b> Application of Vectors in Geometry, Section Formula, Vector Triple Product, Scalar Triple Product, Application of Vectors to Geometry; <b>Probability:</b> Conditional Probability, Bernoulli Trials, Independent Events, Law of Total Probability, Baye's Thorem			
79	Physics Quiz - 27	Wave Optics: YDSE/Thin film interference, Polarisation/Diffraction; Ray Optics and Optical Instruments: Polarization/Diffraction			
80	Chemistry Quiz - 27	<b>Solid State, Solutions, Electrochemistry:</b> Solid State, Solutions, Electrochemistry, Chemical Kinetics, Surface Chemistry			
81	Mathematics Quiz - 27	<b>Three Dimensional Geometry:</b> Director Cosines, Angle between Two Lines, A Point and a Line; <b>Probability:</b> Binomial Distribution, Conditional Probability, Independent Events, Independent Events, Law of Total Probability			
82	Physics Quiz - 28	Atoms: Bohr Model of Atom			
83	Chemistry Quiz - 28	Metallurgy, p-block Elements, d and f-block Elements, Coordination Compounds, The p-block Elements, d and f-block Elements, Coordination Compounds, Qualitative Analysis, Haloalkanes and Haloarenes, Alcohol Phenol and Ethers			
84	Mathematics Quiz - 28	<b>Three Dimensional Geometry:</b> Plane, Shortest Distance Between Skew Lines, Equation of Plane; <b>Probability:</b> Law of Total Probability, Baye's Theorem, Bernoulli Trials, Binomial Theorem, Conditional Probability			
85	Physics Quiz - 29	<b>Dual Nature of Radiation and Matter:</b> de-Broglie wavelength, Photoelectric Effect/Wave Nature			
86	Chemistry Quiz - 29	Aldehydes, Ketones and Carboxylic Acids, Amines, Biomolecules			
87	Mathematics Quiz - 29	Three Dimensional Geometry, Linear Programming and Linear Inequalities: Equation of Line and Plane, Angle between Line and Plane, Linear Inequalities, Foot of Perpendicular and Image of a Point in a Plane, Linear Programming; Probability: Conditional Probability; Function, Limits: Graph of a Function, Composition of Function, L-Hospital Rule			
88	Physics Quiz - 30	Atoms: X-rays, Bohr's Atomic Model; Nuclei: Nuclei			
89	Mathematics Quiz - 30	<b>Probability:</b> Conditional Probability, Independent Events; <b>Differentiability, Application of Derivatives:</b> Differentiability at a Point, Angle of Intersection, First Order Derivative Test; <b>Indefinite Integration:</b> Integration by Parts			
90	Physics Quiz - 31	Nuclei: Nuclei; Semi Conductor: Semiconductors and Communication System			











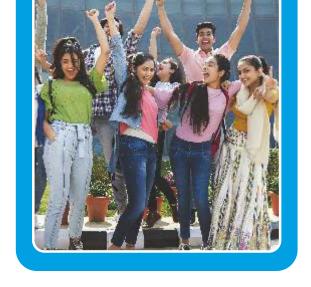
Sr.No.	Test Name	Test Syllabus – Class XII		
91	Mathematics Quiz - 31	Relations and Functions, Differentiation, Application of Derivatives, Continuity and Differentiability, Inverse Trigonometric Function: Types of Relation, Domain of Inverse Trigonometric Function, Chain Rule, Rolle's Theorem, Increasing and Decreasing Functions; Integrals: Integration by Substitution, Integration by Parts, Definite Integration; Definite Integrals: Definite Integration using Independent Integration, Properties of Definite Integration		
92	Physics Quiz - 32	Semiconductors and Communication system: Semiconductors and Communication system; Modern Physics: Modern Physics		
93	Mathematics Quiz - 32	<b>Definite Integration, Differential Equation:</b> Properties of Definite Integration, Estimation, Limit of a Sum, Linear Differential Equation, Solution by Inspection, Homogeneous Differential Equation, Orthogonal Curves; <b>Vector and Three Dimensional Geometry:</b> Dot Product, Vector Triple Product, Equation of Plane, Directions Cosines, Vector Products, Scalar Triple Product		
94	Physics Quiz - 33	Experimental Physics/Modern Physics: Experimental Physics/Modern Physics		
95	Mathematics Quiz - 33	<b>Probability:</b> Permutation and Combination Based, Conditional Probability, Total Probability, Basic Definition and Axiomatic Approach		

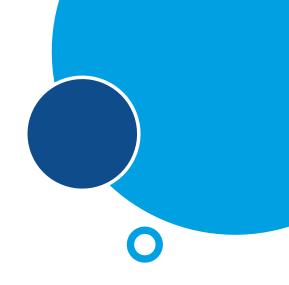




# AIATS SCHEDULE FOR CLASS XII PASSED STUDYING STUDENTS I 2024-25 I

Test No.	Test Date	Date of Display of Answer key and uploading of video Solutions	Result Date	Pattern of Test	Subject	Topics for the Test	
		Colditolio				Physical World and Units & Measurement, Motion in a Straight Line, Motion in a Plane, Laws of Motion, Work, Energy and Power, System of Particles and Rotational Motion, Gravitation, Mechanical Properties of Solids, Mechanical Properties of Fluids	
1	06-10-2024	08-10-2024	13-10-2024	JEE (Main)	Chem	Structure of Atom, Some Basic Concepts of Chemistry , Classification of Elements and Periodicity in Properties, Chemical Bonding and Molecular Structure, Thermodynamics, Equilibrium, Redox Reactions, Stoichiometry & (Volumetric Analysis)*, Solution, Electrochemistry, Chemical Kinetics	
			Maths	Quadratic Equations, Complex Numbers , Sequences and Series, Binomial Theorem, Permutations and Combinations, Matrices, Determinants, Trigonometric Functions			
					Phy	Physical World and Units & Measurement, Motion in a Straight Line, Motion in a Plane, Laws of Motion, Work, Energy and Power, System of Particles and Rotational Motion, Gravitation, Mechanical Properties of Solids, Mechanical Properties of Fluids	
1A	20-10-2024	22-10-2024	27-10-2024	JEE (Advanced) Paper-1 & 2	Chem	Structure of Atom, Some Basic Concepts of Chemistry , Classification of Elements and Periodicity in Properties, Chemical Bonding and Molecular Structure, States of Matter, Thermodynamics, Equilibrium, Redox Reactions, Stoichiometry & (Volumetric Analysis)*, The Solid State, Solution, Electrochemistry, Chemical Kinetics and Nuclear Chemistry, Surface Chemistry	
					Maths	Quadratic Equations, Complex Numbers , Sequences and Series, Binomial Theorem, Permutations and Combinations, Matrices, Determinants, Trigonometric Functions	
					Phy	Thermal Properties of Matter, Thermodynamics, Kinetic Theory of Gases, Oscillations, Waves, Electric Charges and Field, Electrostatic Potential and Capacitance, Current Electricity, Moving Charges & Magnetism	
2	01-12-2024	03-12-2024	08-12-2024	JEE (Main)	Chem	Organic Chemistry - Some Basic Principles and Techniques, Hydrocarbons, Haloalkanes and Haloarenes, Alcohols, Phenols and Ethers, Aldehydes, Ketones and Carboxylic Acids, Amines, Biomolecules	
					Maths	Inverse Trigonometric Functions, Straight Lines (Including Pair of Straight Lines), Conic Sections-I (Circle), Conic Sections-II (Parabola,Ellipse,Hyperbola), Basics of Mathematics (Sets), Relations and Functions, Limits and Derivatives, Continuity and Differentiability, Applications of Derivatives	
					Phy	Thermal Properties of Matter, Thermodynamics, Kinetic Theory of Gases, Oscillations, Waves, Electric Charges and Field, Electrostatic Potential and Capacitance, Current Electricity, Moving Charges & Magnetism	
2A	08-12-2024	10-12-2024	15-12-2024	JEE (Advanced) Paper-1 & 2	Chem	Organic Chemistry - Some Basic Principles and Techniques, Hydrocarbons, Haloalkanes and Haloarenes, Alcohols, Phenols and Ethers, Aldehydes, Ketones and Carboxylic Acids, Amines, Biomolecules, Polymers, Chemistry in Everyday life, Environmental Chemistry	
					Maths	Inverse Trigonometric Functions, Straight Lines (Including Pair of Straight Lines), Conic Sections-I (Circle), Conic Sections-II (Parabola,Ellipse,Hyperbola), Basics of Mathematics (Sets), Relations and Functions, Limits and Derivatives, Continuity and Differentiability, Applications of Derivatives	
					Phy	Magnetism and Matter, Electromagnetic Induction, Alternating Current, Electromagnetic Waves, Ray Optics and Optical Instruments, Wave Optics, Dual Nature of Radiation and Matter, Atoms, Nuclei, Semiconductor Electronics: Materials, Devices and Simple Circuits, Experimental Physics	
3	19-01-2025	21-01-2025	26-01-2025	JEE (Main)	Chem	The d & f-Block Elements, Coordination Compounds, Principles Related to Practical Chemistry including Qualitative Analysis, The p-Block Elements (Group 13-14), The p-Block Elements (Group 15-18)	
					Maths	Indefinite Integration , Definite Integration , Applications of Integrals, Differential Equations, Vector Algebra, Three Dimensional Geometry, Probability, Statistics	
					Phy	Electromagnetic Induction, Alternating Current, Electromagnetic Waves, Ray Optics and Optical Instruments, Wave Optics, Dual Nature of Radiation and Matter, Atoms, Nuclei, Experimental Physics	
3A	02-02-2025	04-02-2025	09-02-2025	JEE (Advanced) Paper-1 & 2	Chem	The d & f-Block Elements, Coordination Compounds, Principles Related to Practical Chemistry including Qualitative Analysis, General Principles & Processes of Isolation of Elements, Hydrogen, The s-Block Elements, The p-Block Elements (Group 13-14), The p-Block Elements (Group 15-18)	
					Maths	Indefinite Integration , Definite Integration , Applications of Integrals, Differential Equations, Vector Algebra, Three Dimensional Geometry, Probability, Statistics	
4	09-02-2025	11-02-2025	16-02-2025	JEE (Main)	PCM	MOCK TEST on Complete Syllabus of JEE (Main)	
4A	16-02-2025	18-02-2025	23-02-2025	JEE (Advanced) Paper-1 & 2	PCM	MOCK TEST on Complete Syllabus of JEE (Advanced)	
5	23-03-2025	25-03-2025	30-03-2025	JEE (Main)	PCM	MOCK TEST on Complete Syllabus of JEE (Main)	
6	30-03-2025	01-04-2025	06-04-2025	JEE (Main)	PCM	MOCK TEST on Complete Syllabus of JEE (Main)	
5A	20-04-2025	22-04-2025	27-04-2025	JEE (Advanced) Paper-1 & 2	PCM	MOCK TEST on Complete Syllabus of JEE (Advanced)	
6A	27-04-2025	29-04-2025	04-05-2025	JEE (Advanced) Paper-1 & 2	PCM	MOCK TEST on Complete Syllabus of JEE (Advanced)	
7A	04-05-2025	06-05-2025	11-05-2025	JEE (Advanced) Paper-1 & 2	PCM	MOCK TEST on Complete Syllabus of JEE (Advanced)	
8A	11-05-2025	13-05-2025	18-05-2025	JEE (Advanced) Paper-1 & 2	PCM	MOCK TEST on Complete Syllabus of JEE (Advanced)	







### **Summary for Class XI & XII**

RANKER PACKAGE		
Year Syllabus	Class XI & XII	
AIATS	14	
Unit Tests	6	
Part Tests	6	
Full Syllabus Tests	4	
Daily Practice Test	191	

