Aakash iTutor

Study Planner for Repeater Course for JEE (Main & Advanced) 2021 May 2020-March 2021 (PS-Phase-1)

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Aakash
Medical | IIT-JEE | Foundations
(Divisions of Aakash Educational Services Limited)

From Managing Director's Desk

A lot has changed at Aakash during the transition from a humble coaching institute to becoming a recognized name in the education field. We live by the notion that the very essence of success is a strong value system. We still believe in the age-old Indian concept of "Guru-Shishya" relationship where a guru shares his knowledge reserve with his pupils and the 'Shishya' strives hard to quench his/her thirst for knowledge.

It has been our endeavour to make Aakash much more than a coaching institute, which is to build it into an institution of repute and purpose. We consider our students the torchbearers of the future of the country and thus, aim to enlighten the future of the nation through this young generation. We dream of a progressing India through the eyes of our students and assist them in accomplishing their dreams with the collective efforts of our faculty & staff members, our students and their parents.

For 31 years, we have been nurturing students and helping them in their endeavour to qualify in various Engineering and Medical entrance exams in the country. This endeavour is actually a journey, which we take along with our students. We wish to feel their emotions, their frustrations, their dreams, their vision, their struggles and their joys. Together we live an experience, which they would remember as one of the most cherished moments in their lives after qualifying the coveted competitive exams.

Even today, we aim at clearing doubts and strengthening the fundamentals of students in their subjects, because we believe these cleared doubts and strengthened fundamentals will eventually strengthen the destiny of our nation, which actually lies in these hands that are holding the 'mighty' pen & are now learning with technology. And we are confident that with Aakash, their future is in safe and progressive hands.

J. C. Chaudhry
Chairman & Managing Director (CMD)

About Aakash iTutor

Recorded Video Lectures on JEE syllabus by master Aakash Faculty help you boost your preparation and perform well in the exam. Learn at your own pace with Video Lectures. Assess yourself by taking the online tests and clear your doubts via 'Ask an Expert'.

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JEE (Joint Entrance Examination)

National Testing agency has been entrusted the responsibility of conducting Joint Entrance Exam (JEE) from 2019 onwards. NTA will conduct JEE (Main) examination in two phases for admission to engineering programmes at NITs, IITs, IIITs and CFTIs. However, it is not compulsory for the candidates to appear for both the phases but in case a candidate appears for both the phases, the best of the two scores is used for eligibity for JEE(Advanced)

Eligibility for admission to NITs, IITs and CFTIs participating through Central Seat Allocation Board

- Admission to B. E / B.Tech /B.Arch /B.Planning courses will be based on All India Rank subject to the condition that the candidate should have secured at least 75% marks in the 12th Class. For SC/ST candidates the qualifying marks should be 65% in 12th Class / qualifying examination conducted by the respective Boards.

- The eligibility criteria for admission to B.Arch course other than NITs, IITs and CFTIs as decided by Council of Architecture for admission to B.Arch is 50% marks in Physics, Chemistry & Mathematics and also 50% marks in aggregate of the qualifying examination.

- The eligibility criteria for admission to B.Planning is that the candidates should have passed the qualifying examination with 50% marks in Mathematics and 50% marks in aggregate of Class 12th examination

Aakash iTutor

In view of the current situation being faced due to the Novel Coronavirus (COVID-19) outbreak, the safety of our students is our prime concern. We are, thus, taking necessary steps towards ensuring that the studies of our students remain uninterrupted.

In order to avoid any loss of studies, we have shared i-Tutor credentials with you and now we are sharing STUDY PLANNER to streamline the flow of studies. As and when the situation improves, we shall commence classes for the regular classroom course, along with continuing to provide free i-Tutor access.

Follow the STUDY PLANNER and BE AHEAD OF THE PACK.

Aakash iTutor

Detailed Academic Planner (September 2020-March 2021)

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Date	Day	Physics	Chemistry	Mathematics	Test Schedule
7-Sep'20	Mon	**Chapter Name : - Mechanical Properties of Fluids** **Recorded Video iTutor Code_P : -** **P15-FS-10-01A to P15-FS-10-06D** **Liquids in accelerated containers,** Container having vertical acceleration, Container having horizontal acceleration, Horizontally accelerated U-tube, Pressure in a rotating frame	**Chapter Name : - Electrochemistry** **Recorded Video iTutor Code_C : -** **C15-SS-03-01A to C15-SS-03-05B** -	**Chapter Name : - Inverse Trigonometric Functions** **Recorded Video iTutor Code_M : -** **M15-SS-02-01A to M15-SS-02-06D** **Sum, difference formula of inverse function**, other formulaes for ITF,**Solution of inverse trigonometric equations**. Assignment discussion	
8-Sep'20	Tue	-	Electrochemical series and its application; (i) **Nernst's equation and its applications**. Equilibrium Constant, Concentration Cell, Thermodynamic Relationship of a cell, Standard electrodes : Gas-gas ion electrode, **Metal-metal ion electrode, Metal-metal insoluble electrodes**, Redox electrode. Batteries, Fuel Cell, Corrosion	**Chapter Name : - Straight Line (Including pair of Straight Lines)** **Recorded Video iTutor Code_M : -** **M15-FS-10-01A To M15-FS-10-07D** Introduction, **distance formula, section formula, area of triangle, definitions of centriod, circumcentre and orthocentre of triangle**, slope of line, Angle between two lines, condition for two lines to be parallel and perpendicular, **Collinearity of three points**	
10-Sep'20	Thu	**Streamline flow, Equation of continuity, Bernoulli's principle, Applications of Bernoulli's theorem**	**Chapter Name : - Chemical Kinetics and Nuclear Chemistry** **Recorded Video iTutor Code_C : -** **C15-SS-04-01A To C15-SS-04-06A** Introduction ; **Rates of chemical reaction: (i) Rate, (ii) Average and instantaneous rate, (iii) Law of mass action, (iv) Rate law or rate equation of a reaction, (v) units of rate of a reaction, Order and molecularity. Integrated rate law : (i) Zero order, (ii) First order, (iii) Half-life, (iv) nth order, Graphical method**. Numericals on some first order reactions : (i) In terms of concentrations,	-	
11-Sep'20	Fri	**Surface tension, Surface energy,** angle of contact**, Excess pressure, Capillary rise**	-	**Various forms of line: Horizontal and vertical line, point slope form, Two point form, Slope intercept form, Intercept form, Normal form, Parametric form,**	
13-Sep'20	**Sun**				**FT-08**
14-Sep'20	Mon	-	(ii) in terms of pressure, (iii) in terms of volumetric analysis, (iv) in terms of optical rotation; Order of reaction from reaction mechanism, Parallel reaction, Factors affecting rate of a chemical reaction : (i) Concentration of reactant, (ii) Nature of reactant and product, (iii) Exposure to radiation (photochemical reactions), (iv) **Temperature (Arrhenius equation),** (v) Catalyst, (vi) Surface area	General equation and comparison with different form, Position of point(s) wrt a line and wrt a triangle,Distance of line from a point, distance between two parallel lines, **Image of point with line, foot of perpendicular ,** Family of Lines	
15-Sep'20	Tue	**Viscosity, Stoke's law, Terminal velocity,** Reynolds number, Poiseuille's formula	**Nuclear chemistry : (i) Properties of a, b, g rays, (ii) Group displacement law, (iii) Nuclear stability, (iv) Rate of radioactive decay, (v) Types of nuclear reactions, (vi) Radio-carbon dating**	-	
17-Sep'20	Thu	**Chapter Name : - OSCILLATIONS** **Recorded Video iTutor Code_P : -** **P15-FS-14-01A To P15-FS-14-04C** Periodic & oscillatory motions, **Simple harmonic motion and uniform circular motion,** Velocity and acceleration in simple harmonic motion, Force law for simple harmonic motion, **Energy in simple harmonic motion, Calculation of time period of spring-block system**	-	**Equation of the bisectors, Analysis of three lines, Transformation of axes**	
18-Sep'20	Fri	-	**Chapter Name : - Organic Chemistry : Some Basic Principles and Techniques** **Recorded Video iTutor Code_C : -** **C15-FS-12-01A To C15-FS-12-09C** General Introduction; Structural representation and classification of organic compounds; Nomenclature: Rules of IUPAC nomenclature of alkanes and unsaturated hydrocarbons. **IUPAC nomenclature of (i) Monofunctional, (ii) polyfunctional organic compounds, (iii) Monosubstituted benzene compounds and (iv) di, tri or higher substituted benzene compounds.**	**Rotation of axes, Pair of straight line(passing through origin and general): angle between lines,** Point of intersection, parallel lines,pair of angle bisector, Joint Equation of pair of straight lines joining origin and the points of intersection of a curve and a line	
21-Sep'20	Mon	**Combination of springs, SHM of two particles system, Angular SHM, Simple pendulum and physical pendulum,** Torsion pendulum	**Isomerism:** Structural isomerism (i) Chain isomerism, (ii) Position isomerism, **(iii) Functional and (iv) Metamerism Tautomerism: Various types of tautomerism; General mechanism of tautomerism;** Unsaturation number, **Stereoisomerism: (i) Geometrical isomerism (ii) Conformational isomerism, Conformations** of ethane, butane and cyclohexane; Relative stability of conformers.	-	
22-Sep'20	Tue	Other examples on linear SHM (particle released in tunnel dig in earth, A floating block is slightly displaced and released in a liquid etc), **Damped simple harmonic motion,Forced oscillations & resonance**	-	**Chapter Name : - Conic Section-I** **Recorded Video iTutor Code_M : -** **M15-FS-11-01A To M15-FS-11-04C** Definition, **different form of circle, general equation, centre radius, Three point form ,Diameter form, parametric form,** Circle and point, length of intercept on the co-ordinate axes, **line and circle, condition for tangency to the circle**	
24-Sep'20	Thu	-	Concepts of organic reaction machanism: (i) Fission of a covalent bond, (ii) Types of reagents : Electrophiles, nucleophiles. Electron displacement in covalent bonds: (i) Inductive effect (+I and –I), (ii) Electromeric effect (+E and –E)	**Equation of tangent,length of tangent from an external point,** normal to a circle, equation of chord with given mid-point, equation of chord of contact	

Date	Day	Physics	Chemistry	Mathematics	Test Schedule
25-Sep'20	Fri	**Chapter Name : - WAVES** **Recorded Video iTutor Code_P : -** **P15-FS-15-01A To P15-FS-15-07D** Progressive wave and its types [Transverse & longitudinal]; Wave pulse; **Wave function and equation of a plane progressive harmonic wave, Phase difference, Path difference; Particle velocity, Particle acceleration, Velocity of transverse wave in string, Velocity of longitudinal waves (sound wave)**; **Intensity** and loudness, **power transmitted in waves, Superposition of Waves, Reflection and refraction of waves**	Resonance (+R and –R): Resonance energy; Application of inductive and resonance effects, **Hyperconjugations**; Aromaticity; Relative stability of (i) Carbocation, (ii) Free radical and (iii) Alkene	-	
28-Sep'20	Mon	Standing waves and it's wave function, **Standing waves in string fixed at both ends /Free at one end, Organ pipe, Resonance tube and end correction**	-	Director circle, equation of pair of tangent,Pole and Polar,Length of chord of circle	
29-Sep'20	Tue	-	Reaction intermediates: (i) Carbocations, (ii) Carbanions, (iii) Free radicals; Types of reactions: (i) Addition reaction, (ii) Elimination reaction, (iii) Substitution reaction and (iv) Rearrangement	Family of Circles,Analysis of two circles, Radical axis,Co-axial system of Circles, Locus Problems, Assignment discussion.	
1-Oct'20	Thu	**Interference of sound waves: Condition for maxima and minima in terms of phase difference and path difference, Beats, definition of beat frequency and calculation of beat frequency, Application of beats to find unknown frequency, Doppler effect, Mixed problem on Doppler effect and beats**	Methods of purification of organic compounds (i) Sublimation, (ii) Crystallisation, (iii) Distillation, (iv) Fractional distillation, (v) Distillation under reduced pressure, (vi) Steam distillation and (vii) Chromatography	-	
2-Oct'20	**Fri**			**Gandhi Jayanti**	
5-Oct'20	Mon	**Chapter Name : - THERMAL PROPERTIES OF MATTER** **Recorded Video iTutor Code_P : -** **P15-FS-11-01A To P15-FS-11-03D** Temperature & Heat, Measurement of temperature, **Thermal expansion,** Linear expansion, Volume expansion, **Relation between volume expansion and linear expansion**, Bimetallic strip, **Change of density with temperature,** Thermal expansion and interatomic energy, Thermal stress, Specific heat capacity, Latent heat, **Calorimetry**	-	**Chapter Name : - Conic Section-II** **Recorded Video iTutor Code_M : -** **M15-FS-11-05A To M15-FS-11-12C** **Standard equation of parabola, parametric equation, line as tangent, condition for tangency**, **Equation of tangent in different form**	
6-Oct'20	Tue	-	Qualitative analysis of organic compounds (i) Detection of carbon and hydrogen (ii) Lassaignes test for detection of nitrogen, Sulphur, halogens and phosphorus, Quantitative analysis: (i) Estimation of carbon and hydrogen (Liebig's method), (ii) Estimation of nitrogen by Dumas method and Kjeldahl's method, (iii) Estimation of halogens, Sulphur and phosphorus by carius method, (iv) molecular weight determination	**Point of intersection of tangent, Normal, co-normal points, properties of co-normal points**, important points related to parabola	
8-Oct'20	Thu	**Heat transfer – Conduction,** Fourier's law of heat conduction, Steady state heat conduction, thermal resistance, Growth of ice in pond	**Chapter Name : - Hydrocarbon** **Recorded Video iTutor Code_C : -** **C15-FS-13-01A To C15-FS-13-08E** Introduction; Classification of hydrocarbons; Alkanes: (i) Nomenclature and Isomerism; (ii) Preparation of alkanes from unsaturated hydrocarbons, alkyl halides, Carbonyl compounds and carboxylic acids. Properties of alkanes: Physical properties;	-	
9-Oct'20	Fri	Convection, **radiation, Black body, Newtion's law of cooling, Stefan's law, Kirchhoff's law, energy distribution of black body radiation, Wein's displacement law**	-	Equation of chord having mid-point (x_1, y_1) equation of pair of tangent,pole and polar, **Standard equation of ellipse,Auxillary circle position of a point, line and ellipse, equation of tangent**	
12-Oct'20	Mon	-	Chemical properties; (i) Substitution reactions-halogenation, (ii) Combustion, (iii) **Controlled oxidation**, (iv) Isomerisation, (v) Aromatization and (vi) Pyrolysis, Alkenes : Structure of double bond; Isomerism : Structural and geometrical; Preparation of alkenes from alkynes, alkylhalides,	**Normal, equation of chord having mid-point (x_1, y_1), pair of tangents ,**director circle,chord of contact,diameter and conjugate diameters	
13-Oct'20	Tue	**Chapter Name : - KINETIC THEORY OF GASES** **Recorded Video iTutor Code_P : -** **P15-FS-13-01A To P15-FS-13-01D** Molecular nature of matter, Behaviour of gases, Gas Laws, **Kinetic theory of an ideal gas, Pressure exerted by a gas, Law of equipartition of energy,** Specific heat capacity, Mean free path, Assignment discussion	Vicinal dihalides and alcohols (Saytzeff and Hoffmann rule), Physical properties and chemical properties of alkenes **(i) Addition of hydrogen, halogen, hydrogen halides, (ii) Markovnikov addition, (iii) Peroxide effect and (iv) Addition of sulphuric acid and water**	-	
15-Oct'20	Thu	**Chapter Name : - THEMODYNAMICS** **Recorded Video iTutor Code_P : -** **P15-FS-12-01A To P15-FS-12-03E** Thermal equilibrium, Zeroth law of thermodynamics, **Thermodynamic state variables and equation of state, Heat, internal energy and work, Calculating work done by a gas, Calculating work done by indicator diagram, First law of thermodynamics**	-	**Standard equation of hyperbola**, Auxillary circle,**Line and hyperbola ,equation of tangent**, Equation of normal,equation of chord having mid-point (x1, y1), pair of tangents ,director circle,chord of contact,diameter and conjugate diameters	
16-Oct'20	Fri	-	**Oxidation of alkenes by (i) Baeyer's reagent and (ii) acidified $KMnO_4$:** Ozonolysis; Polymerisation, Dienes and their addition reactions with halogen and hydrogen halide	Asymptotes, Rectangular hyperbola, Parametric form, Tangent, Normal, assignment discussion.	
18-Oct'20	**Sun**				**FT-09**
19-Oct'20	Mon	Specific heat capacity, **Calculating molar heat capacity of a gas, Various Thermodynamic processes, Polytropic process (PV^x = constant),** Heat engines, Refrigerators & heat pumps, Second law of thermodynamics, Reversible and irreversible process,Carnot's Engine	Alkynes : (i) Nomenclature, Isomerism, (ii) Structure of triple bond, (iii) Preparation of alkynes and (iv) physical properties and (v) Acidic character alkynes. Addition reactions of alkynes : Addition of hydrogen, halogen, hydrogen halide, water; Polymerisation; Oxidation; **Ozonolysis**	-	

Date	Day	Physics	Chemistry	Mathematics	Test Schedule
20-Oct'20	Tue	**Chapter Name : - Electric Charges and Field** **Recorded Video iTutor Code_P : -** **P15-SS-01-01A To P15-SS-01-06B** Electric charges, Conductors and insulators, Charging by induction, Charging by friction, Properties of electric charge, **Coulomb's law,** Vector form of coulomb's law, principle of superposition, **forces between multiple charges**	-	**Chapter Name : - Mathematical Reasoning** **Recorded Video iTutor Code_M : -** **M15-FS-14-01A To M15-FS-14-01E** **Introduction, mathematical statement, New statement from old, negation of statement, compound statement, Special words/phrases AND or 'OR' implication, contrapositive and converse**	
22-Oct'20	Thu	-	Aromatic hydrocarbons: Structure of benzene; Resonance in benzene; Molecular orbital theory. Preparation of benzene; Electrophilic Aromatic substitution, General mechanism, **Nitration, Halogenation and sulphonation of benzene; Friedel craft's alkylation and acylation of benzene;** Addition of H_2 and Cl_2 to benzene, **Ortho, Meta and para directing groups; Activating groups; Deactivating groups, Orientation in monosubstituted benzene.**	**Chapter Name : - Basics of Mathematics (Sets)** **Recorded Video iTutor Code_M : -** **M15-FS-01-01A To M15-FS-01-02B** **Introduction, Sets, Representation of sets, Kinds of Sets, Analysis of two sets : Equal sets, Equivalent sets, Subsets, Intervals as subset of R, Power sets** Universal set**, Venn diagram, Operation on sets : Union of sets, intersection of sets, disjoint sets, difference of two sets, complement of a set, Algebra on sets. Practical problems on union and intersection of two sets,Wavy Curve Method & Inequalities.** Assignment discussions.	
23-Oct'20	Fri	**Electric field, Electric field due to a point charge,** superposition principle, **Electric field due to a group of charges,** Motion of a charged particle in uniform electric field, Electric field of a continuous charge distribution, volume, surface and linear charge distribution,	**Chapter Name : - Haloalkanes and Haloarenes** **Recorded Video iTutor Code_C : -** **C15-SS-11-01A To C15-SS-11-04E** **Haloalkanes and Haloarenes : Introduction, Classification, IUPAC nomenclature, Preparation of haloalkanes from alcohols, from hydrocarbons, halogen exchange; from Arenes and from Diazonium salt. Physical and chemical properties of haloalkanes**	-	
24-Oct'20	Sat				TE-02(A)
25-Oct'20	Sun			**Dussehra**	
26-Oct'20	Mon	Electric field due to a linear charge distribution like a straight rod, Electric field on the axis of a disk, ring and other cases of interest, **Electric lines of force, properties of lines of force, lines of force due to a positive and negitive point charge. Electric flux**	-	**Chapter Name : - Relations and functions** **Recorded Video iTutor Code_M : -** **M15-SS-01-01A To M15-SS-01-06A** Introduction, Cartesian products of sets & Relations, Domain, Range, Total number of relations, Composition & inverse of relations.	
27-Oct'20	Tue	-	**Ambident nucleophiles. Stereochemical aspects of nucleophilic substitution reactions – Optical isomerism, specific rotation, chiral carbon, elements of symmetry, enantiomers, diastereomers, relative and absolute configuration.**	Types of relation, Reflexive, Symmetric, Transitive, Equivalence, Examples, Definition of function. **Definition of domain, Range, Methods to find out domain and Range**	
29-Oct'20	Thu	**Gauss's Law and application,** Calculating electric field using Gauss's law. Electric field due to a point charge, An infinite linear charge distribution, A hollow cylinder of charge, Charged solid cylinder, A shell of charge, Uniform sphere of charge, An infinite thin non conducting sheet	**Mechanism of S_N1 and S_N2**	-	
30-Oct'20	Fri	Electric dipole, Dipole moment, Electric field due to an electric dipole on axial line, equatorial line and At any other point , Electric dipole in a uniform electric field, Potential energy associated with dipole, Dipole in non-uniform electric field, Dipole oscillation	-	**Some basic functions and their graphs, Algebra of functions, Identity function constant function, polynomial function, Rational function, Irrational functions. Modulus function and their properties, Signum function.**	
2-Nov'20	Mon	-	**E1 and E2 reactions**	**Greatest integer function, Fractional function, Exponential function, logarithmic function and their properties**. Algebra of real function, **replacement properties of function.**	
3-Nov'20	Tue	**Chapter Name : - Electrostatic Potential and Capacitance** **Recorded Video iTutor Code_P : -** **P15-SS-02-01A To P15-SS-02-13C** **Electrostatic potential energy , Electrostatic potential energy of two and more point charges, Electrostatic potential, Potential difference, Potential due to a point charge, Potential due to system of charges**	**Reactions of Haloarenes : Nucleophilic substitution,** Electrophilic substitution, Reaction with metals; polyhalogen compounds.	-	
4-Nov'20	Wed				SATS-01
5-Nov'20	Thu	**Potential due to continuous charge distribution e.g., Uniformly charged disc/ring,** Relation between electric field and potential, **Electric potential of an Annulus, Potential due to a spherical shell, Uniform sphere of charge, Infinite long linear charge**	-	**Type of Functions : One-one, Many One, Onto, Into, Examples of Composite Function, Inverse of a Function**, Even/odd Functions, Periodic function.	
6-Nov'20	Fri	-	**Chapter Name : - Alcohols, Phenols and Ethers** **Recorded Video iTutor Code_C : -** **C15-SS-12-01A To C15-SS-12-04D** Alcohols and phenols : Introduction, Classification, **Nomenclature, Structure of functional group, Preparation of alcohols**	**Transformation of Graphs**, Assignment Discussion.	
8-Nov'20	Sun				AIATS-01
9-Nov'20	Mon	**Equipotential surface, Equipotenital surface due to a point charge and electric dipole, a long linear charge, Plane sheet of charge,** Electrostatics of conductors : A conductor placed in electric field, A charged isolated conductor. Electric field near the surface of conductor, The role of sharp points on conducting surfaces	**Preparation of phenols, Physical properties of alcohols and phenols, Chemical properties of alcohols**	-	

Date	Day	Physics	Chemistry	Mathematics	Test Schedule
10-Nov'20	Tue	Conductor with cavity, Electrostatic pressure, Grounding of conductors, Dielectrics and polorisation, **Capacitor and Capacitance, Types of capacitors-Parallel plate Capacitor, spherical capacitor,** Cylindrical capacitor, **Charging of a capacitor, Energy stored in a capacitor, Force between the plates of a parallel plate capacitor**	-	**Chapter Name : - Limits and Derivatives** **Recorded Video iTutor Code_M : -** **M15-FS-13-01A To M15-FS-13-05D** Definition, idea of limits, indeterminate form, limits of polynomial and rational function,**working rule for 0/0 form, limits of trigonometric function, ¥/¥ form**	
12-Nov'20	Thu			**Diwali Break**	
13-Nov'20	Fri				
15-Nov'20	Sun				
16-Nov'20	Mon	-	**Chemical reactions of phenol – Nitration, halogenation, sulphonation; Kolbe's reaction**	**0 × ¥ form, ¥ – ¥ form,** method for 1¥ form, Derivatives: **Derivatives of standard functions**,derivative by first principle, algebra of derivative of function	
17-Nov'20	Tue	**Grouping of capacitors, Capacitors with dielectrics, Sharing of charge and common potential,** Laws for solving complex circuits of capacitors, Van De Graff Generator	**Reimer Tiemann reaction, reduction, oxidation, Claisen rearrangement. Coupling reaction of phenol**	-	
18-Nov'20	Wed				SMTS-01
19-Nov'20	Thu	**Chapter Name : - Current Electricity** **Recorded Video iTutor Code_P : -** **P15-SS-03-01A To P15-SS-03-10C** Electric current, Electric current in conductors, **Ohm's law** , Factors affecting resistance of a conductor, Current density and electric field, Drift of electrons and the origin of resistivity, mobility, **limitations of Ohm's law,** Resistor colour codes, Temperature dependence of resistivity, Calculating resistance for different shapes	-	Basic rules of differentiation, **L' Hospital rule.**	
20-Nov'20	Fri	-	Ethers : Classification, naming and preparation of ethers, Chemical reactions of ethers, Electrophilic substitution of aryl ethers, Preparation of expoxides, Reactions of epoxides	**Chapter Name : - Continuity and Differentiability** **Recorded Video iTutor Code_M : -** **M15-SS-05-01A ToM15-SS-05-06C** **Continuity, Definition, Examples,Important results on continuous functions,types of discontinuity**	
22-Nov'20	Sun				AIATS-01(A)
23-Nov'20	Mon	**Electrical energy, Power**, **Combination of resistors, Cells, emf and internal resistance of a cell, Maximum power transfer theorem, Cells in series and parallel, Kirchoff's laws**	**Chapter Name : - Aldehydes, Ketones and Carboxylic acids** **Recorded Video iTutor Code_C : -** **C15-SS-13-01A To C15-SS-13-05D** Aldehydes and Ketones : Introduction, Nomenclature and structure, **Preparation of aldehydes and ketones from alcohols, hydrocarbons and acid halides**	-	
24-Nov'20	Tue	Earthing or grounding in an electric circuit, Wheatstone bridge, **Equivalent resistance of complex networks, Metering circuits, Galvanometer, Ammeter, Conversion of galvanometer to ammeter, Voltmeter, Conversion of galvanometer to voltmeter**	-	**Continuity continued, Differentiability : Definition, LHD, RHD, differentiabilty at a point**	
26-Nov'20	Thu	-	**Preparation continued from cyanides, esters and carboxylic acids, Preparations of aromatic aldehydes and ketones**	**Chain rule, Differentiation of composite, Implicite**, Inverse Trigonometric function, Differentiation of logarithmic, Parametric forms, 2nd Order and higher order derivative, Rolle's theorem, LMVT, Examples, Determining functions using given relation and assignment discussion.	
27-Nov'20	Fri	Error in the measurement by ammeter/voltmeter. **Meter bridge, potentiometer application of potentiometer, Sensitivity of potentiometer, R-C circuit, Steady state R-C circuit, Transient R-C circuit, Charging and discharging of a capacitor through resistance, Complex RC circuit**	Physical properties of aldehydes and ketones, **Chemical reactions – Nucleophilic addition of HCN, $NaHSO_3$, Grignard's reagent, alcohols and ammonia derivatives**	-	
29-Nov'20	Sun				FT-10
30-Nov'20	Mon	**Chapter Name : - Moving Charges and Magnetism** **Recorded Video iTutor Code_P : -** **P15-SS-04-01A To P15-SS-04-07C** **Magnetic field due to a current element (Biot-savart law), Magnetic field Surrounding a thin straight current carrying conductor, Magnetic field due to a loop of current on its axial point at centre, Magnetic field due to an arc at its centre, Magnetic field due to different combined structures**	-	**Chapter Name : - Applications of Derivatives** **Recorded Video iTutor Code_M : -** **M15-SS-06-01A ToM15-SS-06-06D** Derivative as rate measurer- Rate of change of quantities, Marginal rate, related rates	
1-Dec'20	Tue	-	Reduction reactions : **Reduction to alcohols; reduction to hydrocarbons, Oxidation reactions by Tollen's reagent and Fehling solution; Haloform reaction;** Baeyer-Villeger oxidation, **Reaction due to a-hydrogen : Aldol condensation; Cannizzaro reaction**	**Equation of tangent & Normal, Length of tangent, Normal, Sub-tangent, Subnormal, Angle between two curves**, Examples	

Date	Day	Physics	Chemistry	Mathematics	Test Schedule
3-Dec'20	Thu	**Ampere's circuital law. Applications of Ampere's law (a) magnetic field due to a straight infinite current carrying wire, (b) Magnetic field inside a long straight current carrying conductor,** **(c) Magnetic field inside a hollow straight current carrying conductor, (d) Magnetic field due to an infinite plane sheet of current,** (e) Magnetic field due to a long solenoid, (f) Magnetic field of a toroid, Magnetic force (Lorentz force), Direction of magnetic force (Fleming's left hand rule), Properties of magnetic force on charge, Motion of charged particle in a Magnetic field, when (a) q = 0°, 180° straight line	**Electrophilic substitution of aromatic carbonyl compounds, Perkin reaction, Pinnacol – Pinnacolone rearrangement, Beckmann rearrangement,** Carboxylic acids : Nomenclature and structure of carboxyl group, Preparation of carboxylic acids, Physical properties	-	
4-Dec'20	Fri	(b) q = 90°, circular path, finding r, T, F, (c) q ¹ 0°, 90°, 180°, Helix. Finding radius, pitch, (d) Deviation of charged particle in a magnetic field, (e) Time spent by a charged particle in magnetic field, **Magnetic force on a current carrying conductor,** Force between two parallel current carrying wires, Force between two perpendicular current carrying wires	-	Errors and approximation, **Monotonicity - Increasing and Decreasing function**	
6-Dec'20	Sun				FT-11 (H.A.)
7-Dec'20	Mon	-	**Chemical reactions : Acidic strength, formation of acid halides, esters, anhydrides and amides; Decarboxylation and HVZ reaction,** Derivatives of carboxylic acid : Preparation and **properties of acid halides, anhydrides, esters and amides**	**Definition of local maxima & minima, Absolute maxima & minima**	
8-Dec'20	Tue	**Motion of charged particle in combined electric and magnetic fields. (a) V, E and B all parallel to each other, (b) V, E and B all perpendicular to each other, (c) E is parallel to B and particle velcoity is perpendicular to both these fields, Current loop as a magnetic dipole,** Torque on a current loop in a uniform magnetic field. The magnetic dipole moment of revolving electron. The moving coil galvanometer	**Chapter Name : - Amines** **Recorded Video iTutor Code_C : -** **C15-SS-14-01A To C15-SS-14-03E** Amines : Structure, Classification, **Preparation : Reduction of nitro compounds, cyanides, isocyanides and amides; Gabriel phthalimide synthesis; Hoffman bromamide reaction, Physical properties, Chemical reactions : Basic character of primary, secondary, tertiary aliphatic and aromatic amines;**	-	
10-Dec'20	Thu	**Chapter Name : - Magnetism and Matter** **Recorded Video iTutor Code_P : -** **P15-SS-05-01A To P15-SS-05-02D** Bar Magnet, Magnetic Field Lines, Pole strength, Bar magnet as an equivalent solenoid, Magnetic dipole moment of a bar magnet, Magnetic field due to a bar magnet (a) On axial position, (b) On normal bisector, Dipole in uniform magnetic field, Torque on a magntic dipole in uniform magnetic field, Work done in rotating dipole in uniform magnetic field, Potential energy of dipole in uniform magnetic field, Tangent law, Deflection galvanometer, Gauss's law, Earth's Magnetism, Geographic meridian, Magnetic meridian, Magnetic Declination and dip, Horizontal and vertical component of earth magnetic field. Relation between horizontal component, Vertical component and angle of dip, Magnetization and Magnetic Intensity, Magnetic Susceptibility, Magnetic Permeability, Relative permeability, Magnetic properties of material (a) Diamagnetism (b) paramagnetism (c) ferromagnetism (d) Hysterisis (e) Curie's law, Hard and soft magnets, Permanent magnet and Electromagnets	-	**First order Derivative test, Second order derivative Test,** Turning point, critical points, problem based on daily life, application of maxima and minima, Assignment discussion	
11-Dec'20	Fri	-	**Alkylation and acylation of amines, Carbylamine reaction, Reaction with HNO_2, Hinsberg test,** Electrophilic substitution of aromatic amines, Diazonium salts, Preparation, physical properties and chemical reactions of diazonium salts, Coupling reaction with phenol and aniline	**Chapter Name : - Indefinite Integration** **Recorded Video iTutor Code_M : -** **M15-SS-07-01A To M15-SS-07-06C** Integration as an inverse process of differentiation, Geometrical interpretation of Indefinite Integrals properties and Algebra of Integration, Methods of integrations, **Integration by substitution**, Integration using trigonometric identities, Integration of some particular functions, Integral of form	
13-Dec'20	Sun				TE-03(A)
14-Dec'20	Mon	**Chapter Name : - Electromagnetic Induction** **Recorded Video iTutor Code_P : -** **P15-SS-06-01A To P15-SS-06-07D** The experiments of Faraday and Henry, Magnetic flux, **Faraday's law of inducton,** Lenz's law, Lenz's law and conservation of energy, **Methods to change the magnetic flux, Induced emf, induced current and induced charge in different cases,** Field induction**, induced electric field, Induced electric field in a cylindrical region,** Examples based on calculation of emf induced in rods placed in various positions in the cylindrical region	**Chapter Name : - Biomolecules** **Recorded Video iTutor Code_C : -** **C15-SS-15-01A To C15-SS-15-03D** **Carbohydrates : Classification, Glucose-preparation and structure, Reaction with phenyl hydrazine, Cyclic structure of glucose, Diasaccharides, Starch and cellulose, Proteins : Amino acids – Nomenclature and classification; Isoelectric point, Peptides and polypeptides, Structure of proteins,** Enzymes, Vitamins, Nucleic acids	-	
15-Dec'20	Tue	**Motional emf in a straight conductor, effective length concept,** energy considration, Eddy current, electromagnetic damping, **Inductance and inductor, Self inductance,** Potential difference across an inductor, energy stored in an inductor, energy density, Grouping of Inductors	-	Integration by Partial fraction, Integration by parts, integral of form $\int e^x \{f(x) + f'(x)\} dx$ some special integral, Integration of irrational functions, successive integration by parts, Reduction formulae	
16-Dec'20	Wed				SATS-02

Date	Day	Physics	Chemistry	Mathematics	Test Schedule
17-Dec'20	Thu	-	**Chapter Name : - Polymers** **Recorded Video iTutor Code_C : -** **C15-SS-16-01A To C15-SS-16-02E** Polymers : Introduction, Classification, Types of polymerization – Addition and condensation, Copolymerisation, Rubber-Natural and synthetic; Vulcanization of rubber, Average molecular mass, Biodegradable polymers	Integration of types $\int \sin^m x.\cos^n x\,dx,\ \int \tan^m x.\sec^n x\,dx,\ \int \frac{p\cos x+q\sin x+v}{a\cos x+b\sin x+c}dx,\ \int f(\sin x,\cos x)dx,\ \int f\left(x\pm\sqrt{x^2+a^2}\right)dx$ Assignment Discussion	
18-Dec'20	Fri	**L-R circuit (growth of current and decay of current), steady state LR circuit, steady state LCR- circuits, Current in various branches just after closing and just after opening the switch, Time constant of complex LR circuits**	**Chapter Name : - Chemistry in Everyday Life** **Recorded Video iTutor Code_C : -** **C15-SS-17-01A To C15-SS-17-01C** Drugs and their classification, Drug target interaction, Therapeutic action of different classes of drugs, Chemicals in food, Cleansing agents – Soaps and detergents.	-	
20-Dec'20	**Sun**				**AIATS-02**
21-Dec'20	Mon	Mutual inductance, Calculation of mutual inductance for two coils, mutual inductance of a solenoid surrounded by a coil, AC generator, Migration of birds	-	**Chapter Name : - Definite Integration** **Recorded Video iTutor Code_M : -** **M15-SS-07-07A To M15-SS-07-11C** **Introduction- Fundamental theorem of integral calculus, Evaluation of integrals by substitution**	
22-Dec'20	Tue	-	**Chapter Name : - Environmental Chemistry** **Recorded Video iTutor Code_C : -** **C15-FS-14-01A To C15-FS-14-01C** Atmospheric pollution, Gaseous Air pollutants; Greenhouse effect; Particulate pollutants; Smog; Ozone hole; Water pollution, Soil pollution, Industrial waste, Strategies to control environmental pollution.	**Properties of definite integrals**	
23-Dec'20	**Wed**				**SMTS-02**
24-Dec'20	Thu	**Chapter Name : - Alternating Current** **Recorded Video iTutor Code_P : -** **P15-SS-07-01A To P15-SS-07-02E** Alternating current and emf, Mean value for half cycle of AC, Root mean square value of AC, Phasor diagram, Hot wire instrument, **AC voltage applied to a resistor, inductor and capacitor, AC through an L-R circuit, AC through an R-C circuit, AC voltage applied to a series LCR circuit, Resonance, sharpness of resonance,** Parallel resonance circuit, Power in AC circuit (the power factor) Choke coil, **LC oscillation**, Transformer	**Chapter Name : - d & f - Block elements** **Recorded Video iTutor Code_C : -** **C15-SS-08-01A To C15-SS-08-03B** Introduction : General characteristics of transition elements : (i) **Electronic configuration,** (ii) Variation in atomic and ionic size, (iii) Ionization enthalpy, (iv) **Oxidation state,** (v) Electrode potential, (vi) Colour, (vii) Catalytic property, (viii) Formation of complex and interstitial compounds, (ix) Magnetic properties, Alloys. **Some important compounds : (i) Potassium dichromate, (ii) Potassium permanganate,**	-	
25-Dec'20	**Fri**			**X-mas**	
27-Dec'20	**Sun**				**AIATS-02(A)**
28-Dec'20	Mon	**Chapter Name : - Electromagnetic Waves** **Recorded Video iTutor Code_P : -** **P15-SS-08-01A To P15-SS-08-01D** Ampere circuital law and its contradiction, Displacement current, Maxwell equation, Sources of electromagnetic waves, Important characteristic and Nature of EM Wave, Relation between Electric field, Magnetic Field and speed of light, Intensity of electromagnetic waves, Intensity due to a point source, Electromagnetic Spectrum.	-	**Properties of definite integrals continued**	
29-Dec'20	Tue	-	**(iii) Silver nitrate, (iv)Ag_2O, (v) $Ag_2S_2O_3$, (vi) White vitriol, $ZnCl_2$, Blue vitriol, CuO, $CuCl_2.2H_2O$, FeO, Green vitriol, (vii) Ferric chloride,** The inner transition elements (f-block) : General properties of Lanthanoids and actinoids	Estimation of integrals, Gamma Function, Reduction formula, Miscellaneous Problem and assignment discussion	
31-Dec'20	Thu	**Chapter Name : - Ray Optics and Optical Instruments** **Recorded Video iTutor Code_P : -** **P15-SS-09-01A To P15-SS-09-09E** Concept of rays; Laws of reflection; Plane mirrors; (reflection from plane surface); Image formation and characteristics of image; Speed of image of moving object, Number of images due to two inclined mirrors; Field of view and minimum size of mirror to view full image of the persons; Minimum size of mirror to view full length of wall behind the person, Field of view, **Reflection from curved surface;** Pole, principal axis, centre of curvature, etc.; Mirror equation; (graph between 1/v and 1/u, between v and u); Magnification ; (lateral as well as longitudinal); Co-ordinates of image if point object is not at principal axis; Image speed when object is moving	**Chapter Name : - Co-ordination Compounds** **Recorded Video iTutor Code_C : -** **C15-SS-09-01A To C15-SS-09-04C** Important definitions, HSAB principle, Classification of ligands. **IUPAC Naming, Isomerism (including stereoisomerism)**	-	
1-Jan'21	**Fri**			**New Year**	
4-Jan'21	Mon	Refraction at plane surface, **laws of refraction;** Finding refracted ray, given incident ray vector; Apparent depth; Apparent depth in the case of multi-layer of media, **Total internal reflection; (critical angle); Mirage, optical fibres;** Shift due to a slab, Path of a ray of light in a medium of variable refractive index	-	**Chapter Name : - Application of integrals** **Recorded Video iTutor Code_M : -** **M15-SS-08-01A To M15-SS-08-03B** Introduction, Area under simple curve, Curve sketching. Basic problems.	

Date	Day	Physics	Chemistry	Mathematics	Test Schedule
5-Jan'21	Tue	-	Werner theory, Effective atomic number, **VBT**	**Area under the curves**, Miscellaneous Problem and assignment discussion.	
7-Jan'21	Thu	Refraction from spherical surfaces; **Refraction from single spherical surface; (relation between image distance and object distance), Lenses; Lens - maker's formula; Different types of lenses, eg. Biconvex, Biconcave, Plano convex etc.**	**CFT, Colours of complex,** organometallic, Stability of complex (Including factor affecting stability) Application of complexes.	-	
8-Jan'21	Fri	**Lenses; Lens formula, Image formation due to lens ; (convex and concave); Magnification of image due to lens, Lens Combination**.; **Displacement method to determine the focal length of a convex lens.,** Power of a lens; Power of a combination of thin lenses in contact; Equivalent focal length; (power) of a combination of two lenses separated by a distances; Behaviour of lens silvered on one face	-	**Chapter Name : - Differential Equations** **Recorded Video iTutor Code_M : -** **M15-SS-09-01A To M15-SS-09-04E** Introduction: Order Degree of differential equation, Examples, **Formation of a differential equation. Methods of solving differential equation variable separable.** Homogeneous differential equation. Reducible to homogeneous differential equation,	
10-Jan'21	Sun				FT-12
11-Jan'21	Mon	-	**Chapter Name : - Qualitative Analysis** **Recorded Video iTutor Code_C : -** **C15-SS-10-01A To C15-SS-10-02E** Physical analysis; Microcosmic bead test, Na_2CO_3 bead test, Dry test : (i) **Flame test, (ii) Borax-bead test.** Analysis of acid radicals : **CO_3^{2-}**, CH_3COO^-, **NO_2^-, NO_3^-,** SO_3^{2-}, S^{-2}, Cl^-,Br^-, I^-, F^-, BO_3^{3-},SO_4^{2-}, PO_4^{3-},	**linear differential equation**, Bernoulli's equation	
12-Jan'21	Tue	**Prism;** Expression for deviation due to prism; Deviation due to thin prism; Minimum deviation and calculation of refractive index with the help of minimum deviation; Condition for no emergence of ray from prism; Dispersion and deviation due to prism, dispersive power; Condition for dispersion without deviation and deviation without dispersion	**Analysis of basic radicals : Ag^+, Pb^{2+}, Hg_2^{2+}, Hg^{2+}, Cu^{2+}, Cd^{2+}, Bi^{+3},As^{3+}, Sn^{2+}, Sb^{3+},** Fe^{+3}, Al^{+3}, Cr^{+3}, **Ni^{+2}, Co^{+2}, Zn^{+2}, Mn^{+2}, Ba^{2+}, Ca^{2+}, Sr^{2+}, Mg^{2+}, NH_4^+.**	-	
14-Jan'21	Thu	**Optical Instruments; Simple microscope;** (magnification in normal adjustment and adjustment for least distance); **Compound microscope;** (magnification in both adjustments - normal as well as for least distance) tube length**; Telescope;** (magnification in both adjustments), tube – length	-	Inspection method, Orthogonal trajectory examples, Miscellaneous questions	
15-Jan'21	Fri	-	**Chapter Name : - General Principles and Processes of Isolation of Elements** **Recorded Video iTutor Code_C : -** **C15-SS-06-01A To C15-SS-06-01G** Introduction : **Occurrence, Important ores and minerals;** Metallurgical process : (i) Crushing, (ii) Concentration, (iii) Calcination and roasting, (iv) **Reduction. Thermodynamic principles of metallurgy: Ellingham diagram,** Purification. Extractive metallurgy of **(i) Iron, (ii) Tin, (iii) Copper, (iv) Lead, (v)** Magnesium, **(vi) Aluminium, (vii) Silver, (viii) Zinc**	**Chapter Name : - Vectors Algebra** **Recorded Video iTutor Code_M : -** **M15-SS-10-01A To M15-SS-10-06D** Introduction : Types of vectors, **Addition of Vectors and Properties, Multiplication by Scalar,** Components of Vector, Section Formula, **Dot product of two vectors**	
18-Jan'21	Mon	**Chapter Name : - Wave Optics** **Recorded Video iTutor Code_P : -** **P15-SS-10-01A To P15-SS-10-04E** **Wave Optics;** Concept of wavefront and ray; Huygen's construction; Explanation of laws of reflection and refraction; Behaviour of mirrors, lenses and prisms according to wave – model, Coherent and Inchorent source of light, Interference of light – Mathematical analysis, **Young's Double slit experiment, locations of bright and dark fringes,** Shape of fringes on screen, fringe-width; Effect on fringe - width if colour of light changed, if experimental set - up is dipped in liquid; Intensity variation, fringe visibility.	**Chapter Name : - Hydrogen** **Recorded Video iTutor Code_C : -** **C15-FS-09-01A To C15-FS-09-03C** (i) Unique position of hydrogen as explained by resemblance with alkali metals and halogens, (ii) Isotopes of hydrogen, (iii) Preparation, properties, both physical and chemical and uses of hydrogen, (iv) Hydride - Ionic, Covalent and metallic, (v) Water- Structure, Physical and Chemical Properties, (i) Hard and soft water - Types of hardness, softening of water and degree of hardness, **(ii) Hydrogen peroxide-** Preparations, Structure, Physical and Chemical Properties, **(iii) Volume Strength of H_2O_2**, (iv) Heavy Water (D_2O), (v) Dihydrogen as a fuel	-	
19-Jan'21	Tue	**Interference;** Interference experiment with bi-chromatic light, coincidence of two bright fringes or dark fringes; Optical path, displacement of fringes due to introduction of a transparent slab in the path of waves, Diffraction, Resolving power of optical instruments, validity of ray optics, Polarization, Intensity of transmitted light, Law of Malus, Brewster's Law	-	**Cross Product of two vectors, Scalar Triple product**	
21-Jan'21	Thu	-	**Chapter Name : - s-block element** **Recorded Video iTutor Code_C : -** **C15-FS-10-01A To C15-FS-10-03D** (i) s-block elements- Alkali and alkaline earth metals: diagonal relationship, (ii) Group-1 elements: General discussion on physical and chemical properties, **(iii) General characteristics of compounds of alkali metals,** (i) Anomalous properties of Lithium, (ii) Compounds of sodium and potassium	Volume of parallelepiped, Tetrahedron, Examples, Vector triple product and its application, Solution of vector equation,Assignment Discussion	

Date	Day	Physics	Chemistry	Mathematics	Test Schedule
22-Jan'21	Fri	**Chapter Name : - Dual Nature of radiation and Matter** **Recorded Video iTutor Code_P : -** **P15-SS-11-01A To P15-SS-11-02B** Introduction, Electron Emission; **Photoelectric effect; Work function; Stopping potential, its dependence on intensity and frequency of incident light;** Failure of wave-model of light to explain out the above mentioned experimental findings, Hallwach and Lenard's observation, experimental study of photoelectric effect, laws of photoelectric emmision, Einstein's theory of photons; **Einstein's photo-electric equation, Problems based on photoelectric effect,** Radiation pressures; (when light falls normally / obliquely) ; Matter - waves and **de-Broglie wave-length** ; Davisson – Germer experiment, Compton effect	(iii) Alkaline earth metals- General discussion on physical and chemical properties, (i) **General characteristics of compounds of alkaline earth metals**, (ii) Anomalous behaviour of beryllium, (iii) Compounds of calcium and magnesium	-	
25-Jan'21	Mon	**Chapter Name : - Atoms** **Recorded Video iTutor Code_P : -** **P15-SS-12-01A To P15-SS-12-03E** Atomic structure; Thomson model; Rutherford's a-scattering exp.; atomic spectra, **Bohr's model; (radius, speed of electron, energy); Line spectra of hydrogen atom., De Broglie's explanation of bohr's second postulate of quantization,** Examples based on above concepts, Atomic excitation due to collision, X-rays; Coolidge tube arrangement; **Characteristic and continuous X-rays;** Minimum wavelength of continuous X-rays; Moseley's law and its derivation according to Bohr's model	-	**Chapter Name : - 3D Geometry** **Recorded Video iTutor Code_M : -** **M15-SS-11-01A To M15-SS-11-05D** Introduction, Direction cosines, direction ratios, **vector and Cartesian equation of a line in space, Angle between two lines**	
26-Jan'21	Tue			**Republic Day**	
27-Jan'21	Wed				**SATS-03**
28-Jan'21	Thu	-	**Chapter Name : - p-block elements (group 13 to group 18)** **Recorded Video iTutor Code_C : -** **C15-SS-07-01A To C15-SS-07-05E** (i) Boron family- Physical and chemical properties, (ii) Anomalous properties of boron, (iii) extraction of boron and its properties, **(i) Compounds of boron, (ii) Compounds of aluminium, (i) Carbon family- Physical and Chemical properties, (ii) Allotropes of carbon, (iii) Compounds of Carbon and silicon**	**Skew lines, Shortest distance between skew lines and parallel lines, Plane : Introduction, Various equations of the plane**	
29-Jan'21	Fri	**Chapter Name : - Nuclei** **Recorded Video iTutor Code_P : -** **P15-SS-13-01A To P15-SS-13-02E** Nucleus; Nuclear forces; Nuclear stability curve; **Nuclear binding energy** and examples on its calculation; Mass defect; Packing fraction; **Nuclear reactions; a, b, g – decays, Natural Radioactivity and Law of radioactive decay; Half – life; Average life; Activity; (its units);** Examples based on above concepts; Determination of age of rock; Carbon – dating, Radioactive decay series; **Successive disintegration and radioactive equilibrium;** Examples based on above concepts; Problems based on nuclear collisions and reactions	**Physical properties of group - 15, Anomalous behaviour of nitrogen, Chemical properties and trends in chemical reactivity, Dinitrogen**	-	
31-Jan'21	Sun				**AIATS-03**
1-Feb'21	Mon	**Chapter Name : - Semiconductor Electronics : Materials Devices And Simple Circuits** **Recorded Video iTutor Code_P : -** **P15-SS-14-01A To P15-SS-14-04D** Classification of insulators, conductors and semiconductors, Intrinsic semiconductors, Extrinsic Semiconductors, Energy bands, **PN type semi conductors, PN Junction,** Semiconductor Diode, Application of Junction Diode as a rectifier (Half wave Rectifier and Full Wave Rectifier) Special purpose PN Junction Diode	-	**Family of planes, Coplanar lines, angle between planes, Plane and line– Angle, Distance of a point from a plane and from a line. Image of a point with respect to a plane**	
2-Feb'21	Tue	-	**Ammonia, Oxides of nitrogen, nitric acid, allotropes of phosphorous, Compounds of phosphorous (PH_3, PCl_3, PCl_5, oxoacids phosphorus)**	**Chapter Name : - Probability** **Recorded Video iTutor Code_M : -** **M15-FS-16-01A To M15-FS-16-02D & M15-SS-13-01A To M15-SS-13-05D** Basic definition, Random experiment, Types of event **exhaustive event, Mutually exclusive event** , Axiomatic approach of probability **addition rule of probability, Miscellaneous problem based on Permutation and Combination**	
3-Feb'21	Wed				**SMTS-03**
4-Feb'21	Thu	Junction Transistor, Transistor as a device(Switch, Amplifier and oscillator), Digital electronics and logic gates	**Physical and chemical properties of 16th group elements, Dioxygen (Preparation and properties), oxides, ozone, Allotropes of "S", Compounds of S (oxoacids, H_2S, SO_2, SO_3, $Na_2S_2O_3.5H_2O$)**	-	

Date	Day	Physics	Chemistry	Mathematics	Test Schedule
5-Feb'21	Fri	**Chapter Name : - Communication Systems** **Recorded Video iTutor Code_P : -** **P15-SS-15-01A To P15-SS-15-01E** Introduction, Elements of communication system; Basic Teminology used in electronic communication system, band width of signals, band width of transmission medium, modulation and its necessity, types of modulation, Amplitude modulation, Demodulation detection of amplitude modulated wave, Different communication system (Ground wave, Space wave, Sky wave, Satellite communication)	-	Problems having geometrical flavour,Conditional Probability, multiplication theorem on probability	
7-Feb'21	Sun				AIATS-03(A)
8-Feb'21	Mon	-	**Physical and chemical properties of 17th group F_2, Cl_2, Br_2 and I_2. (Preparation and properties) HX, Oxoacids of halogens, bleaching powder, Interhalogen compounds, Pseudohalogens.** Physical properties of 18th group elements, Compound of Xe.	**Independent events,** Tree Diagram, **Bayes' theorem,** Probability distribution of a random variable, Mean & Variance of distribution, Binomial Distribution,Assignment Discussion	
9-Feb'21	Tue	**Chapter Name : - Units & Measurements** **Recorded Video iTutor Code_P : -** **P15-FS-02-01A To P15-FS-02-02C** **Experiments based on vernier callipers, Screw Gauge,** Dimensions of various physical quantities. **Dimensional Analysis and its Application,** Accuracy & Precision of instruments, Errors (with its types), **Propagation of errors in different operations like sum, difference, product and division,** Significant figures and different operations with significant figures, Rules of Rounding off.	**Chapter Name : - Surface Chemistry** **Recorded Video iTutor Code_C : -** **C15-SS-05-01A To C15-SS-05-04C** Introduction, Adsorption : (i) Some basic definitions, Distinction between adsorption and absorption, **(ii) Mechanism, (iii) Types of adsorption, Characteristic of adsorption. (i) Freundlich Isotherm and langmuir isotherm, (ii) Application, (iii) Catalyst,** (iv) Enzymes Catalysis, **Colloidal system; (i) Particle size and colloidal state, (ii) Classification of colloidal system. Colloid : (i) Preparation, (ii) Properties, (iii) Purification, (iv) Emulsion (v) Application of colloid.**	-	
11-Feb'21	Thu	-	-	**Chapter Name : - Statistics** **Recorded Video iTutor Code_M : -** **M15-FS-15-01A To M15-FS-15-01C** **Measure of dispersion, Mean deviation for ungrouped and grouped data, mean deviation about median, mean deviation about mean, Variance and standard deviation, standard deviation of discrete frequency distribution, Analysis of frequency distribution**	
14-Feb'21	Sun				FT-13
28-Feb'21	Sun				FT-14
7-Mar'21	Sun				TE-04(A)
17-Mar'21	Wed				SATS-04
21-Mar'21	Sun				AIATS-04
28-Mar'21	Sun				AIATS-05

Aakash iTutor

Test Planner
(September 2020-March 2021)

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Test Schedule for Long Term Students : Class XII_Passed(G1) for JEE (Main & Advanced) 2021
September'20 - March'21

Test Name	Test Date	Day	Topic		
			Physics	Chemistry	Mathematics
FT-08	13-Sep-20	Sunday	System of Particles and Rotational Motion, Gravitation	Equilibrium, Redox Reactions & Volumetric Analysis*	Permutation and Combination, Matrices, Determinants
FT-09	18-Oct-20	Sunday	Mechanical Properties of Solids, Mechanical Properties of Fluids, Oscillations, Waves	Solid State, Solutions, Electrochemistry, Chemical Kinetics and Nuclear Chemistry	Trigonometric functions, Inverse Trigonometric Functions, Straight Line (Including pair of Straight Lines)
TE-02(A)	24-Oct-20	Saturday	Syllabus of FT-08 to FT-09		
SATS-01	4-Nov-20	Wednesday	Motion in a Straight Line,Motion in a Plane,Laws of motion,Work, energy and power	Some Basic concepts of Chemistry,Atomic Structure,Periodic Properties ,Chemical bonding and molecular structure,States of Matter,Thermodynamics	Quadratic Equations, Complex numbers, Principle of Mathematical Induction, Sequence and Series, Binomial Theorem, Permutation and Combination, Matrices, Determinants
AIATS-01	8-Nov-20	Sunday	Motion in a Straight Line,Motion in a Plane,Laws of motion,Work, energy and power	Some Basic concepts of Chemistry,Atomic Structure,Periodic Properties ,Chemical bonding and molecular structure,States of Matter,Thermodynamics	Quadratic Equations, Complex numbers, Principle of Mathematical Induction, Sequence and Series, Binomial Theorem, Permutation and Combination, Matrices, Determinants
SMTS-01	18-Nov-20	Wednesday	Syllabus of SATS-01		
AIATS-01(A)	22-Nov-20	Sunday	Syllabus of AIATS-01		
FT-10	29-Nov-20	Sunday	Thermal Properties Of Matter, Kinetic Theory Of Gases, Themodynamics, Electric Charges and Field	Organic Chemistry : Some Basic Principles and Techniques, Hydrocarbon	Conic Section-I, Conic Section-II
FT-11 (H.A.)	6-Dec-20	Sunday	Electrostatic Potential and Capacitance, Current Electricity	Haloalkanes and Haloarenes, Alcohols, Phenols and Ethers	Mathematical Reasoning, Basics of Mathematics (Sets), Relations and functions
TE-03(A)	13-Dec-20	Sunday	Syllabus of FT-10 to FT-11		
SATS-02	16-Dec-20	Wednesday	System of Particles and Rotational Motion,Gravitation,Mechanical Properties of Solids,Mechanical Properties of Fluids,Oscillations, Waves	Equilibrium,Redox Reactions & Volumetric Analysis*,Solid State,Solutions,Electrochemistry,Chemical Kinetics and Nuclear Chemistry	Trigonometric functions, Inverse Trigonometric Functions,Straight Line
AIATS-02	20-Dec-20	Sunday	System of Particles and Rotational Motion,Gravitation,Mechanical Properties of Solids,Mechanical Properties of Fluids,Oscillations, Waves	Equilibrium,Redox Reactions & Volumetric Analysis*,Solid State,Solutions,Electrochemistry,Chemical Kinetics and Nuclear Chemistry	Trigonometric functions, Inverse Trigonometric Functions,Straight Line

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Test Schedule for Long Term Students : Class XII_Passed(G1) for JEE (Main & Advanced) 2021
September'20 - March'21

Test Name	Test Date	Day	Topic		
			Physics	Chemistry	Mathematics
SMTS-02	23-Dec-20	Wednesday	Syllabus of SATS-02		
AIATS-02(A)	27-Dec-20	Sunday	Syllabus of AIATS-02		
FT-12	10-Jan-21	Sunday	Moving Charges and Magnetism, Magnetism and Matter, Electromagnetic Induction, Alternating Current, Electromagnetic Waves	Aldehydes, Ketones and Carboxylic acids, Amines, Biomolecules, Polymers, Chemistry in Everyday Life, Environmental Chemistry	Limits and Derivatives, Continuity and Differentiability, Applications of Derivatives
SATS-03	27-Jan-21	Wednesday	Thermal Properties Of Matter,Kinetic Theory Of Gases,Themodynamics,Electric Charges And Field,Electrostatic Potential And Capacitance,Current Electricity	Organic Chemistry : Some Basic Principles and Techniques,Hydrocarbon,Haloalkanes and Haloarenes,Alcohols, Phenols and Ethers	Conic Section-I,Conic Section-II,Mathematical Reasoning,Sets,Relations and functions
AIATS-03	31-Jan-21	Sunday	Thermal Properties Of Matter,Kinetic Theory Of Gases,Themodynamics,Electric Charges And Field,Electrostatic Potential And Capacitance,Current Electricity	Organic Chemistry : Some Basic Principles and Techniques,Hydrocarbon,Haloalkanes and Haloarenes,Alcohols, Phenols and Ethers	Conic Section-I,Conic Section-II,Mathematical Reasoning,Sets,Relations and functions
SMTS-03	3-Feb-21	Wednesday	Syllabus of SATS-03		
AIATS-03(A)	7-Feb-21	Sunday	Syllabus of AIATS-03		
FT-13	14-Feb-21	Sunday	Ray Optics, Wave Optics	d & f - Block elements, Co-ordination Compounds , Qualitative Analysis	Indefinite Integration, Definite Integration, Application of integrals, Differential Equations
FT-14	28-Feb-21	Sunday	Dual Nature of radiation and Matter, Atoms , Nuclei, Semiconductor Electronics : Materials Devices And Simple Circuits, Communication Systems, Units & Measurements	General Principles and Processes of Isolation of Elements, Hydrogen, s-block element , p-block elements (group 13 to group 18), Surface Chemistry	Vectors Algebra, 3D Geometry , Probability, Statistics
TE-04(A)	7-Mar-21	Sunday	Syllabus of FT-12 to FT-14		

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Test Schedule for Long Term Students : Class XII_Passed(G1) for JEE (Main & Advanced) 2021
September'20 - March'21

Test Name	Test Date	Day	Topic		
			Physics	Chemistry	Mathematics
SATS-04	17-Mar-21	Wednesday	Moving Charges and Magnetism,Magnetism and Matter**,Electromagnetic Induction,Alternating Current,Electromagnetic Waves**,Ray Optics,Wave Optics,Dual Nature of radiation and Matter,Atoms ,Nuclei,Semiconductor Electronics : Materials Devices And Simple Circuits**,Communication Systems**,Units & Measurements	Aldehydes, Ketones and Carboxylic acids,Amines,Biomolecules,Polymers,Chemistry in Everyday Life, Environmental Chemistry, d & f - Block elements,Co-ordination Compounds ,Qualitative Analysis, General Principles and Processes of Isolation of Elements, Hydrogen,s-block element ,p-block elements (group 13 to group 18), Surface Chemistry	Limits and Derivatives, Continuity and Differentiability, Applications of Derivatives, Indefinite Integration, Definite Integration, Application of integrals, Differential Equations, Vectors Algebra, 3D Geometry, Probability, Statistics
AIATS-04	21-Mar-21	Sunday	Moving Charges and Magnetism,Magnetism and Matter**,Electromagnetic Induction,Alternating Current,Electromagnetic Waves**,Ray Optics,Wave Optics,Dual Nature of radiation and Matter,Atoms ,Nuclei,Semiconductor Electronics : Materials Devices And Simple Circuits**,Communication Systems**,Units & Measurements	Aldehydes, Ketones and Carboxylic acids,Amines,Biomolecules,Polymers,Chemistry in Everyday Life, Environmental Chemistry, d & f - Block elements,Co-ordination Compounds ,Qualitative Analysis, General Principles and Processes of Isolation of Elements, Hydrogen,s-block element ,p-block elements (group 13 to group 18), Surface Chemistry	Limits and Derivatives, Continuity and Differentiability, Applications of Derivatives, Indefinite Integration, Definite Integration, Application of integrals, Differential Equations, Vectors Algebra, 3D Geometry, Probability, Statistics
AIATS-05	28-Mar-21	Sunday	MOCK TEST on Complete Syllabus of JEE (Main)		

Note:		
FT - JEE Main Pattern	Timing: 3 hrs	Test window of FT & TE Test will remain open for 72 Hrs thereafter the link would be disabled
TE - JEE Advanced Pattern	Timing: 6 hrs	
SATS - JEE Main	Timing: 3 hrs	Test window of SATS Test will remain open for 48 Hrs thereafter the link would be disabled
SMTS - JEE Advanced Pattern	Timing: 3 hrs	Test window of SMTS Test will remain open for 48 Hrs thereafter the link would be disabled
AIATS - JEE Main Pattern	Timing: 3 hrs	Test window of AIATS Test will remain open for 48 Hrs thereafter the link would be disabled
AIATS - JEE Advanced Pattern	Timing: 6 hrs	

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Date	Day	Recorded Video iTutor Code_P	Chapter Name	Physics	Recorded Video iTutor Code_C	Chapter Name	Chemistry	Recorded Video iTutor Code_M	Chapter Name	Mathematics	Test Schedule
6-Jul	Mon			Equilibrium of a particle, Common forces in mechanics (weight, tension, normal reaction, spring force), Motion of connected bodies, Motion of a body on an inclined plane, Pulley block system			(i) Bond Parameters (bond length, bond anngle, bond energy), (iii) Fajan's rule, (iv) Percentage ionic character, (ii) Concept of dipole moment, Resonance	-		-	
7-Jul	Tue			Problems on pulley block system (including movable pulley), Problems involving Movable Wedge			-			Introduction, A.P. n^{th} term of AP, properties of A.P. Sum of n term of an AP Arithmetic mean, Geometric progression, n^{th} term, sum of n term of GP Geometric mean,	
9-Jul	Thu			-	C15-FS-04-01A to C15-FS-04-06C	Chemical bonding and molecular structure	(i) Linear combination of atomic orbitals (ii) Molecular orbital theory (concept of bonding and anti-bonding orbital) and shape of molecular orbitals, (i) Filling of M.O. and energy diagram,	M15-FS-09-01A to M15-FS-09-05D	Sequence and Series	Introduction to H.P., Relation between AM, GM and HM, Arithmetic, Geometric series, Sum of n terms of special series	
10-Jul	Fri			Friction, Static & kinetic friction, Motion on a fixed rough surface			(i) Determine bond order and discuss magnetic property / bond length and bond stability, (ii) H-bonding, (iii) Metallic bonding.			-	
12-Jul	Sun										FT-05
13-Jul	Mon			Miscellanous problems on friction (one block over the other)			-			Method of difference, Exponential series logarithmic series, Problems	
14-Jul	Tue	P15-FS-05-01A to P15-FS-05-09C	Laws of motion	-	C15-FS-05-01A to C15-FS-05-04C	States of Matter	(I) Intermolecular force and thermal energy, (II) Gaseous state-(i) Introduce volume, pressure and temperature, their various units and relation among them, (ii) Gas laws — (a) Boyle's law, (b) Charle's law, (c) Gay Lussac's law ; (d) Avogadro's law, , (III) Ideal gas introduction and ideal gas equation, Basic problem on them, (I) Ideal gas equation (numericals), (II) Dalton's law of partial pressure, (III) Kinetic theory of gases, (IV) Kinetic energy and molecular speeds, (V) Maxwell boltzmann distribution of molecular speeds. (I) Graham's law of diffusion and effusion,			Fundamental principle of counting, multiplication principle, addition principle, factorial notation, Permutation: Permutation of things not all distinct.	
16-Jul	Thu			Inertial & non-inertial frames, Pseudo force			(II) Real gas and van der Waal equation (ideal gas equation correction), (III) Introduction of compressibility factor, (IV) Compressibility factor expression from van der Waal equation and its qualitative explanation. Liquefaction of gases, (v) Eudiometry, (vi) Liquid state : Vapour pressure, Surface tension, Viscosity			-	
17-Jul	Fri			Circular motion and banking of roads			-			Different types of problem based on Permutation	
20-Jul	Mon			-	C15-FS-06-01A to C15-FS-06-07	Thermodynamics	**Introduction to Basic Terms :** (i) Types of system, (ii) State of a System, (iii) State function, (iv) State variable, (v) path function, (vi) Extensive, intensive property, (vii) Thermodynamic process, (viii) Internal Energy as a state function, (ix) Pressure volume work (x) First law of thermodynamics with Enthalpy. (i) Heat capacity, (iii) Relation between C_p and C_v for an ideal gas, (iii) Isothermal reversible process, (iv) Reversible adiabatic process. (i) Measurement of DU and DH, (ii) Enthalpy change of a reaction,	M15-FS-07-01A to M15-FS-07-08C	Permutation and Combination	**Combination:** Difference between a permutation and combination, circular permutation, Rank of a word in dictionary.	
21-Jul	Tue			Scalar product of vectors, Work done by constant and variable forces, Energy, Kinetic energy, conservative and non conservative forces, Concept of potential energy			(iii) Standard enthalpy of formation (DH^o_f), (iv) Enthalpy change for different type of reaction. (i) Hess's law, (ii) Bond dissociation enthalpy, (i) Second law of thermodynamics, (ii) Spontaneity and Enthalpy change, (iii) Introduction to Entropy, (iv) Entropy change in various process.			-	
23-Jul	Thu			Gravitational and spring potential energy, Work-energy theorem			-			Combination of different type of objects, special use of ^nC_r, Divisors, sum of the numbers formed by n distinct digits, Division into groups, Equal division of objects, Arrangement into group, Number of integral solution of an equation, application of multinomial expansion.	
24-Jul	Fri			-			(i) Numericals based on entropy, (ii) Trouton's rule, (iii) Gibbs free energy change and spontaneity, (iv) Calculation of Gibbs energy for a reaction. (i) Thermodynamics of equilibrium state, (ii) Third law of thermodynamics, (iii) Kirchhoff's equation.			Exponent of a prime number in a factorial, derangement, Assignment discussion	
26-Jul	Sun										FT-06
27-Jul	Mon	P15-FS-06-01A to P15-FS-06-05C	Work, energy and power	Power, Conservation of mechanical energy			Introduction to equilibrium : (i) Physical equilibrium, (ii) Chemical equilibrium, (iii) Law of mass action and equilibrium constant, (iv) Introduce K_c and K_p, (v) Relation between K_c and K_p, (vi) Homogeneous and hetrogeneous equilibria. Applications of equilibrium constant : (i) Predicting the extent of reaction, (ii) Predicting direction of reaction, (iii) Predicting equilibrium concentration, (iv) Solving problems based on them. (i) Relationship between equilibrium constant (K), reaction quotient (Q) and Gibb's free energy (G) (ii) Factors affecting equilibria (Lechatelier principle), (iii) Relative vapour density and degree of dissociation.			-	
28-Jul	Tue			Vertical circular motion, Collisions head on elastic			-	M15-SS-03-01A to M15-SS-03-03E	Matrices	Matrices : Introduction, Types of matrices, Operations on Matrices- Equality of matrices, Algebra of matrices-Addition, Subtraction, Multiplication by scalar, matrix multiplication & Properties, Trace of a matrix, Transpose of a matrix : Symmetric, Skew Symmetric Elementary operations on matrices, Inverse using elementary operations, Assignment discussion.	
30-Jul	Thu			-			Ionic equilibrium in solution : (i) Acids, bases and salts, (ii) Acids and bases-Arrhenius concept, Bronsted and Lowry concept and Lewis concept, (iii) Ionisation of water and K_w, pH scale, Effect of temperature on pH scale, (iv) pH of acids and bases (v) Ionisation constants of weak acids and weak bases (pH calculation).			Introduction: Determinants of matrix of order one, two, three, Properties of Determinant Applications of Determinants- Areas, Minor and Co-factors.	

Date	Day	Recorded Video iTutor Code_P	Chapter Name	Physics	Recorded Video iTutor Code_C	Chapter Name	Chemistry	Recorded Video iTutor Code_M	Chapter Name	Mathematics	Test Schedule
31-Jul	Fri									Eid	
3-Aug	Mon				C15-FS-07-01A to C15-FS-07-09C	Equilibrium		M15-SS-04-01A to M15-SS-04-03D	Determinants	Raksha Bandhan	
4-Aug	Tue			Head on inelastic collision, Oblique elastic & Oblique inelastic collisions			(i) Factors affecting acidic strength, (ii) Common ion effect in the ionisation of weak acids and weak bases, (iii) pH determinations (iv) Mixture of two weak acid, (v) Mixture of strong acid and weak acid, (i) Polyprotic weak acid, (ii) introduce the concept of salt hydrolysis, (iii) Salt of strong acid strong base, (i) Salt of weak acid strong base,			-	
6-Aug	Thu	P15-FS-07-01A to P15-FS-07-11C	System of Particles and Rotational Motion	Centre of mass of discrete particle system and continuous mass distribution, Motion of centre of mass, Linear momentum of system of particles,			-			Adjoint of a matrix, Inverse of a matrix, Applications of Determinants and Matrices, Solution of equations- Using Inverse and Cramer's rule, Assignment discussion.	
7-Aug	Fri			-			(ii) Salt of weak base strong acid, (iii) Salt of weak acid weak base, (iv) Hydrolysis constant and pH determination, Buffer solution : (i) Types of buffer solution - Acidic buffer, Basic buffers and Salt buffers. (i) Buffer action, (ii) pH of a buffer solution, (iii) Buffer capacity,			Angles, Important terms, system of measurement of angles, trigonometric function, Values of trigonometric function for some specific angles, Trigonometric ratios of allied angles, Domain and ranges of trigonometric function, Graph of trigonometric functions.	
9-Aug	Sun										FT-07
10-Aug	Mon			Miscellaneous Problems on Conservation of linear momentum and mechanical energy, Rigid body, Rigid body constraint for velocity and acceleration, Vector product of two vectors, Torque			(iv) Acid-base titration-theory of indicators, pH curves, (v) Solubility and solubility product, (vi) Relation between solubility and solubility product.			-	
11-Aug	Tue			Equilibrium of a rigid body, Shifting of normal reaction and toppling			-			Transformation formulae: trigonometric ratio of the sum and difference of two angles. Transforming product into sum or difference, transforming the sum or difference into product, Trigonometric ratio of multiple angles.	
13-Aug	Thu			-			(i) Common ion effect on solubility of ionic salts, (ii) Different cases of calculating solubilities, (iii) Ionic product and solubility product (Precipitation).			Sub-multiple angles, Important key related half angles, Analysis of the form y = asinx + b cosx, Conditional identities.	
14-Aug	Fri			Moment of inertia for discrete particle system, Uniform symmeteric bodies, Theorems of perpendicular and parallel axis	C15-FS-08-01A to C15-FS-08-04C	Redox Reactions & Volumetric Analysis*	(i) Classical idea of oxidation and reduction reactions, (ii) Electronic concept of redox reactions, (iii) Oxidation numbers, (iv) Rules for assigning oxidation number, (v) Oxidation and reduction in terms of oxidation numbers, (vi) Oxidising agent and reducing agent. Types of redox reactions : (i) Combinations reaction, (ii) Decomposition reactions, (iii) Displacement reactions, (iv) Disproportionation reactions, (v) Fractional oxidation states, (vi) Balancing of redox reactions by oxidation number method and ion electron method, (i) Equivalent weight, (ii) Normality, Volumetric calculation of simple titrations, Back titration, Double titration.			-	
16-Aug	Sun										TE-01(A)
17-Aug	Mon			Dynamics of rotational motion about a fixed axis			-			Sum of trigonometrical series, Assignment discussion on transformation formulae (Height and Distance).	
18-Aug	Tue			-			Redox reactions as the basis of titrations involving : (i) Acidified $KMnO_4$, (ii) Acidified $K_2Cr_2O_7$ and (iii) Iodo/Iodimetric titration, (iv) Volume strength of H_2O_2, Redox reactions and Electrode processes : (i) Function of salt bridge, (ii) standard electrode potential, (iii) Applications of electrochemical series.			Trigonometric equation: Types of trigonometric equation, Principal value, General solution of basic trigonometric equation. Equation containing one variable, solution by reducing trigonometric to algebraic trigonometric equation of the form acosx + bsinx = c.	
20-Aug	Thu			General motion of a rigid body, Kinematics of Rolling motion, Dynamics of Rolling Motion, Rotational kinetic energy and work energy theorm for rigid body			**Introduction :** Three states of mater, **Classification of solids :** (i) Characteristic properties, (ii) Difference between crystalline and amorphous solids, (iii) Classification of crystalline solids; **Structure of solids :** (i) Basic definitions, (ii) Types of unit cells, Seven crystal systems and Bravais lattice, Calculation of effective number of particles in a unit cell. Elements of symmetry in cube : (i) Centre of symmetry, (ii) Plane of symmetry, (iii) Axis of symmetry,	M15-FS-03-01A to M15-FS-03-14C	Trigonometric functions	-	
21-Aug	Fri			Angular momentum of a particle and system of particles, Angular momentum of rigid body about fixed and moving axis , Conservation of angular momentum, Angular Impulse, Instantaneous axis of rotation			-			Equation containing more than one variable: trigonometric equation containing more than one function in one variables, Trigonometric equation containing different functions and different variables, Trigonometric equation in which trigonometric function containing large exponent.	
24-Aug	Mon			-	C15-SS-01-01A to C15-SS-01-04B	Solid State	**Close packed structures** : (i) 1-D close packing, (ii) 2-D close packing, (iii) 3-D close packing, (AAA... type packing). ABAB.....type packing, (i) hexagonal close packing, (ii) Cubic close packing and voids, Packing efficiency.			Trigonometric inequalities, precautions in solving the equation. Assignment discussion of trigonometric equations.	
25-Aug	Tue			Universal law of Gravitation, The gravitational constant, Acceleration due to gravity upon the Earth's surface, Acceleration due to gravity above the surface of earth, Acceleration due to gravity below the surface of the earth, Variation of g due to shape of the earth, variation of g due to rotation of earth about its own axis, Gravitational field, Gravitational field due to bodies of different shapes: Point mass, thin spherical shell, solid sphere, uniform ring			**Radius ratio in ionic solids :** r^+/r^- in voids; Density, Coordination number, Types of crystal structure : (i) AB type, (ii) AB_2 and A_2B type, (iii) Spinel and inverse spinel structures; Effect of temperature and pressure. Bragg's Law, Imperfection in solids : (i) Stoichiometric defects, (ii) Non-stoichiometric defects; Magnetic and electrical properties of solids			-	
27-Aug	Thu	P15-FS-08-01A to P15-FS-08-04E	Gravitation	Gravitational potential energy, Gravitatonal Potential energy of an object in the field of earth, Escape velocity, Gravitatonal Potential, Relationship between field and potential, Gravitational potential due to different bodies: point mass, spherical shell, Solid sphere, ring			-			Properties of triangle, sine rule and cosine rule, Napier's analogy, projection formulae, Area of triangle in different form.	

Date	Day	Recorded Video iTutor Code_P	Chapter Name	Physics	Recorded Video iTutor Code_C	Chapter Name	Chemistry	Recorded Video iTutor Code_M	Chapter Name	Mathematics	Test Schedule
28-Aug	Fri			-	C15-SS-02-01A to C15-SS-02-05B	Solutions	Introduction : (i) Basic definitions, (ii) Type of solutions; methods of expressing strength of solutions; **Solubility** : (i) Solid in liquid, (ii) Gas in liquid (with Henry's law), (iii) Liquid in liquid, **Vapour pressure of solution :** (i) Factors affecting vapour pressure, (ii) Raoult's law, (iii) Ideal solutions. Non-ideal solutions, (iv) Classification of non-ideal solutions, Composition of vapour; Azeotropic mixture, Colligative properties : (i) Relative lowering of vapour pressure.			Half angle formula, Circumcentre, incentre, Orthocentre, Centroid.	
31-Aug	Mon			Earth's satellite, Energy of satellite, Geostationary & polar satellite, Weightlessness, Kepler's laws of planetary motion			(ii) Elevation in boiling point, (iii) Depression in freezing point, (iv) Osmotic pressure. van't Hoff factor and abnormal molecular mass : (i) Association of solute, (ii) Dissociation of solute			-	
1-Sep	Tue	P15-FS-09-01A to P15-FS-09-01D	Mechanical Properties of Solids	Elastic behaviour of solids, Stress and Strain, Hooke's Law, Stress strain curve, Elastic moduli, Elastic potential energy, Poisson's ratio, Application of elastic behaviour of materials			-			Escribed circle, Regular polygon, Assignment discussion on properties of triangle.	
3-Sep	Thu			-	C15-SS-03-01A to C15-SS-03-05B	Electrochemistry	Introduction ; **Electrolytic conductance :** (i) Conductors, (ii) Ohm's law, (iii) Resistance, (iv) Conductance, (v) Cell constant, (vi) Molar and equivalent conductance, Variation of conductance with concentration, Kohlrausch's law and its application, Conductometric titration (Precipitation reaction, Strong acid - strong base reaction, Weak acid-weak base reaction, weak acid-strong base reaction)	M15-SS-02-01A to M15-SS-02-06D	Inverse Trigonometric Functions	Principal value, Graphical representation, Properties of Inverse Trigonometric functions, Converting one inverse function into another	
4-Sep	Fri	P15-FS-10-01A to P15-FS-10-06D	Mechanical Properties of Fluids	Pressure, density, Pascal's law, Variation of pressure with depth, Hydrostatic paradox, Hydraulic lift, Hydraulic brakes, Force and torque due to hydrostatic pressure, Archimede's principle			**Electrolysis :** (i) Electrolytic cell, (ii) Product of electrolysis, (iii) Faraday's law of electrolysis, Electrochemical cell : (i) Cell representation (ii) Working of a cell, (iii) Function of salt bridge, (iv) Electrode potential and emf of a cell			-	

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Test Schedule for Long Term Students : Class XII_Passed(G1) for JEE (Main & Advanced) 2021 July - September 2020					
Test Name	**Test Date**	**Day**	**Topic**		
			Physics	**Chemistry**	**Mathematics**
FT-05 JEE Main Pattern	12-Jul-20	Sunday	Motion in a Straight Line, Motion in a Plane	Some Basic concepts of Chemistry, Atomic Structure,	Quadratic Equations, Complex numbers
FT-06 JEE Main Pattern	26-Jul-20	Sunday	Laws of motion	Periodic Properties , Chemical bonding and molecular structure	Principle of mathematical induction, Sequence and Series
FT-07 JEE Main Pattern	9-Aug-20	Sunday	Work, energy and power	States of Matter, Thermodynamics	Binomial Theorem
TE-01 (A) Adv Paper-1 & 2	16-Aug-20	Sunday	Syllabus of FT-05 to FT-07		

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Test	Total no. of Qs	Time	Test Pattern
Fortnightly Test	30 (10 from each subject)	1 hr	**Single Objective(MCQ Type)**

Daily Schedule for Long Term Students : Class XII Passed for JEE (Main & Advaned) 2021
May to July 2020

Date	Day	Subjects	Chapter Name	Lecture Code & Topic	Read E book	Watch Video Lecture	Solve DPT	Doubt Clearing Session
8-May-20	Friday	Physics	Physical World	Lecture Code: 1.1 Physical World	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
		Chemistry	Some Basic Concept of Chemistry	Lecture Code: 1.1 Laws of Chemical Combination	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
9-May-20	Saturday	Physics	Physical World	Lecture Code: 1.1 Physical World	Can Revise	YES (MUST)	YES (MUST)	4:00 pm -5:00 pm
		Chemistry	Some Basic Concept of Chemistry	Lecture Code: 1.1 Laws of Chemical Combination	Can Revise	YES (MUST)	YES (MUST)	5:15 pm -6:15 pm
10-May-20	Sunday	**Revision Day**						
11-May-20	Monday	Chemistry	Some Basic Concept of Chemistry	Lecture Code: 1.2 Mole Concept	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
		Maths	Complex Numbers & Quadratic Equations	Lecture Code: 1.1 Cartesian Form and Algebra	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
12-May-20	Tuesday	Chemistry	Some Basic Concept of Chemistry	Lecture Code: 1.2 Mole Concept	Can Revise	YES (MUST)	YES (MUST)	4:00 pm -5:00 pm
		Maths	Complex Numbers & Quadratic Equations	Lecture Code: 1.1 Cartesian Form and Algebra	Can Revise	YES (MUST)	YES (MUST)	5:15 pm -6:15 pm
13-May-20	Wednesday	Maths	Complex Numbers & Quadratic Equations	Lecture Code: 1.2 Polar Form, Square Root, Properties of Modulus	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
		Physics	Units & Measurements	Lecture Code: 2.1 Units and Dimensions	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
14-May-20	Thursday	Maths	Complex Numbers & Quadratic Equations	Lecture Code: 1.2 Polar Form, Square Root, Properties of Modulus	Can Revise	YES (MUST)	YES (MUST)	4:00 pm -5:00 pm
		Physics	Units & Measurements	Lecture Code: 2.1 Units and Dimensions	Can Revise	YES (MUST)	YES (MUST)	5:15 pm -6:15 pm

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Test	Total no. of Qs	Time	Test Pattern
Fortnightly Test	30 (10 from each subject)	1 hr	**Single Objective(MCQ Type)**

Daily Schedule for Long Term Students : Class XII Passed for JEE (Main & Advaned) 2021
May to July 2020

Date	Day	Subjects	Chapter Name	Lecture Code & Topic	Read E book	Watch Video Lecture	Solve DPT	Doubt Clearing Session
15-May-20	Friday	Physics	Units & Measurements	Lecture Code: 2.2 Measurement	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
		Chemistry	Some Basic Concept of Chemistry	Lecture Code: 1.3 Limiting Reagent	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
16-May-20	Saturday	Physics	Units & Measurements	Lecture Code: 2.2 Measurement	Can Revise	YES (MUST)	YES (MUST)	4:00 pm -5:00 pm
		Chemistry	Some Basic Concept of Chemistry	Lecture Code: 1.3 Limiting Reagent	Can Revise	YES (MUST)	YES (MUST)	5:15 pm -6:15 pm
17-May-20	Sunday	**Revision Day**						
18-May-20	Monday	Chemistry	Some Basic Concept of Chemistry	Lecture Code: 1.4 Measurement of Concentration	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
		Maths	Complex Numbers & Quadratic Equations	Lecture Code: 1.3 Euler's Form, De-Moivre's Theorem, Cube Roots, nth Roots	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
19-May-20	Tuesday	Chemistry	Some Basic Concept of Chemistry	Lecture Code: 1.4 Measurement of Concentration	Can Revise	YES (MUST)	YES (MUST)	4:00 pm -5:00 pm
		Maths	Complex Numbers & Quadratic Equations	Lecture Code: 1.3 Euler's Form, De-Moivre's Theorem, Cube Roots, nth Roots	Can Revise	YES (MUST)	YES (MUST)	5:15 pm -6:15 pm
20-May-20	Wednesday	Maths	Complex Numbers & Quadratic Equations	Lecture Code: 1.4 Rotation, Geometry Introduction	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
		Physics	Motion in a Straight Line	Lecture Code: 3.1 Introductory Concepts of Kinematics	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
21-May-20	Thursday	Maths	Complex Numbers & Quadratic Equations	Lecture Code: 1.4 Rotation, Geometry Introduction	Can Revise	YES (MUST)	YES (MUST)	4:00 pm -5:00 pm
		Physics	Motion in a Straight Line	Lecture Code: 3.1 Introductory Concepts of Kinematics	Can Revise	YES (MUST)	YES (MUST)	5:15 pm -6:15 pm

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Test	Total no. of Qs	Time	Test Pattern
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Daily Schedule for Long Term Students : Class XII Passed for JEE (Main & Advaned) 2021
May to July 2020

Date	Day	Subjects	Chapter Name	Lecture Code & Topic	Read E book	Watch Video Lecture	Solve DPT	Doubt Clearing Session
22-May-20	Friday	Physics	Motion in a Straight Line	Lecture Code: 3.2 Motion in 1-Dimension	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
		Chemistry	Some Basic Concept of Chemistry	Lecture Code: 1.5 Principle of Atom Conservation (POAC)	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
23-May-20	Saturday	Physics	Motion in a Straight Line	Lecture Code: 3.2 Motion in 1-Dimension	Can Revise	YES (MUST)	YES (MUST)	4:00 pm -5:00 pm
		Chemistry	Some Basic Concept of Chemistry	Lecture Code: 1.5 Principle of Atom Conservation (POAC)	Can Revise	YES (MUST)	YES (MUST)	5:15 pm -6:15 pm
24-May-20	Sunday	**Fortnightly Test-01**						
25-May-20	Monday	Chemistry	Some Basic Concept of Chemistry	Lecture Code: 1.6 Equivalent Concept	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
		Maths	Complex Numbers & Quadratic Equations	Lecture Code: 1.5 Geometry with Complex Numbers	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
26-May-20	Tuesday	Chemistry	Some Basic Concept of Chemistry	Lecture Code: 1.6 Equivalent Concept	Can Revise	YES (MUST)	YES (MUST)	4:00 pm -5:00 pm
		Maths	Complex Numbers & Quadratic Equations	Lecture Code: 1.5 Geometry with Complex Numbers	Can Revise	YES (MUST)	YES (MUST)	5:15 pm -6:15 pm
27-May-20	Wednesday	Maths	Complex Numbers & Quadratic Equations	Lecture Code: 1.6 Loci, Miscellaneous Examples	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
		Physics	Motion in a Straight Line	Lecture Code: 3.3 Motion under Gravity	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
28-May-20	Thursday	Maths	Complex Numbers & Quadratic Equations	Lecture Code: 1.6 Loci, Miscellaneous Examples	Can Revise	YES (MUST)	YES (MUST)	4:00 pm -5:00 pm
		Physics	Motion in a Straight Line	Lecture Code: 3.3 Motion under Gravity	Can Revise	YES (MUST)	YES (MUST)	5:15 pm -6:15 pm

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Test	Total no. of Qs	Time	Test Pattern
Fortnightly Test	30 (10 from each subject)	1 hr	**Single Objective(MCQ Type)**

Daily Schedule for Long Term Students : Class XII Passed for JEE (Main & Advaned) 2021
May to July 2020

Date	Day	Subjects	Chapter Name	Lecture Code & Topic	Read E book	Watch Video Lecture	Solve DPT	Doubt Clearing Session
29-May-20	Friday	Physics	Motion in a Straight Line	Lecture Code: 3.4 Graphical Representation of Motion	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
		Chemistry	Some Basic Concept of Chemistry	Lecture Code: 1.7 Problems Based on Equivalent Concept	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
30-May-20	Saturday	Physics	Motion in a Straight Line	Lecture Code: 3.4 Graphical Representation of Motion	Can Revise	YES (MUST)	YES (MUST)	4:00 pm -5:00 pm
		Chemistry	Some Basic Concept of Chemistry	Lecture Code: 1.7 Problems Based on Equivalent Concept	Can Revise	YES (MUST)	YES (MUST)	5:15 pm -6:15 pm
31-May-20	Sunday	**Revision Day**						
1-Jun-20	Monday	Chemistry	Structure of Atom	Lecture Code: 2.1 Early Developments	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
		Maths	Complex Numbers & Quadratic Equations	Lecture Code: 1.7 Miscellaneous Examples on Complex number	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
2-Jun-20	Tuesday	Chemistry	Structure of Atom	Lecture Code: 2.1 Early Developments	Can Revise	YES (MUST)	YES (MUST)	4:00 pm -5:00 pm
		Maths	Complex Numbers & Quadratic Equations	Lecture Code: 1.7 Miscellaneous Examples on Complex number	Can Revise	YES (MUST)	YES (MUST)	5:15 pm -6:15 pm
3-Jun-20	Wednesday	Maths	Complex Numbers & Quadratic Equations	Lecture Code: 1.8 Quadratic Equation	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
		Physics	Motion in a Plane	Lecture Code: 4.1 Vector-I	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
4-Jun-20	Thursday	Maths	Complex Numbers & Quadratic Equations	Lecture Code: 1.8 Quadratic Equation	Can Revise	YES (MUST)	YES (MUST)	4:00 pm -5:00 pm
		Physics	Motion in a Plane	Lecture Code: 4.1 Vector-I	Can Revise	YES (MUST)	YES (MUST)	5:15 pm -6:15 pm

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Daily Schedule for Long Term Students : Class XII Passed for JEE (Main & Advaned) 2021
May to July 2020

Date	Day	Subjects	Chapter Name	Lecture Code & Topic	Read E book	Watch Video Lecture	Solve DPT	Doubt Clearing Session
5-Jun-20	Friday	Physics	Motion in a Plane	Lecture Code: 4.2 Vector-II	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
		Chemistry	Structure of Atom	Lecture Code: 2.2 Bohr's Quantum Theory	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
6-Jun-20	Saturday	Physics	Motion in a Plane	Lecture Code: 4.2 Vector-II	Can Revise	YES (MUST)	YES (MUST)	4:00 pm -5:00 pm
		Chemistry	Structure of Atom	Lecture Code: 2.2 Bohr's Quantum Theory	Can Revise	YES (MUST)	YES (MUST)	5:15 pm -6:15 pm
7-Jun-20	Sunday	**Fortnightly Test-02**						
8-Jun-20	Monday	Chemistry	Structure of Atom	Lecture Code: 2.3 Hydrogen Emission Spectrum	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
		Maths	Complex Numbers & Quadratic Equations	Lecture Code: 1.9 Location of Roots	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
9-Jun-20	Tuesday	Chemistry	Structure of Atom	Lecture Code: 2.3 Hydrogen Emission Spectrum	Can Revise	YES (MUST)	YES (MUST)	4:00 pm -5:00 pm
		Maths	Complex Numbers & Quadratic Equations	Lecture Code: 1.9 Location of Roots	Can Revise	YES (MUST)	YES (MUST)	5:15 pm -6:15 pm
10-Jun-20	Wednesday	Maths	Complex Numbers & Quadratic Equations	Lecture Code: 1.10 Cubic Equation, Examples	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
		Physics	Motion in a Plane	Lecture Code: 4.3 Motion in 2-Dimensions	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
11-Jun-20	Thursday	Maths	Complex Numbers & Quadratic Equations	Lecture Code: 1.10 Cubic Equation, Examples	Can Revise	YES (MUST)	YES (MUST)	4:00 pm -5:00 pm
		Physics	Motion in a Plane	Lecture Code: 4.3 Motion in 2-Dimensions	Can Revise	YES (MUST)	YES (MUST)	5:15 pm -6:15 pm

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Test	Total no. of Qs	Time	Test Pattern
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Daily Schedule for Long Term Students : Class XII Passed for JEE (Main & Advaned) 2021
May to July 2020

Date	Day	Subjects	Chapter Name	Lecture Code & Topic	Read E book	Watch Video Lecture	Solve DPT	Doubt Clearing Session
12-Jun-20	Friday	Physics	Motion in a Plane	Lecture Code: 4.4 Projectile Motion (Contd.)	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
		Chemistry	Structure of Atom	Lecture Code: 2.4 Dual Nature of Radiation	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
13-Jun-20	Saturday	Physics	Motion in a Plane	Lecture Code: 4.4 Projectile Motion (Contd.)	Can Revise	YES (MUST)	YES (MUST)	4:00 pm -5:00 pm
		Chemistry	Structure of Atom	Lecture Code: 2.4 Dual Nature of Radiation	Can Revise	YES (MUST)	YES (MUST)	5:15 pm -6:15 pm
14-Jun-20	Sunday	**Revision Day**						
15-Jun-20	Monday	Chemistry	Classification of Elements and Periodicity in Properties	Lecture Code: 3.1 Early Developments	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
		Maths	Complex Numbers & Quadratic Equations	Lecture Code: 1.11 Miscellaneous Examples	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
16-Jun-20	Tuesday	Chemistry	Classification of Elements and Periodicity in Properties	Lecture Code: 3.1 Early Developments	Can Revise	YES (MUST)	YES (MUST)	4:00 pm -5:00 pm
		Maths	Complex Numbers & Quadratic Equations	Lecture Code: 1.11 Miscellaneous Examples	Can Revise	YES (MUST)	YES (MUST)	5:15 pm -6:15 pm
17-Jun-20	Wednesday	Maths	Principle of Mathematical Induction	Lecture Code: 2.1 Principle of Mathematical Induction	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
		Physics	Motion in a Plane	Lecture Code: 4.5 Projectile on an Incline	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
18-Jun-20	Thursday	Maths	Principle of Mathematical Induction	Lecture Code: 2.1 Principle of Mathematical Induction	Can Revise	YES (MUST)	YES (MUST)	4:00 pm -5:00 pm
		Physics	Motion in a Plane	Lecture Code: 4.5 Projectile on an Incline	Can Revise	YES (MUST)	YES (MUST)	5:15 pm -6:15 pm

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Daily Schedule for Long Term Students : Class XII Passed for JEE (Main & Advaned) 2021
May to July 2020

Date	Day	Subjects	Chapter Name	Lecture Code & Topic	Read E book	Watch Video Lecture	Solve DPT	Doubt Clearing Session
19-Jun-20	Friday	Physics	Motion in a Plane	Lecture Code: 4.6 Relative Motion	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
		Chemistry	Classification of Elements and Periodicity in Properties	Lecture Code: 3.2 Periodic Properties	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
20-Jun-20	Saturday	Physics	Motion in a Plane	Lecture Code: 4.6 Relative Motion	Can Revise	YES (MUST)	YES (MUST)	4:00 pm -5:00 pm
		Chemistry	Classification of Elements and Periodicity in Properties	Lecture Code: 3.2 Periodic Properties	Can Revise	YES (MUST)	YES (MUST)	5:15 pm -6:15 pm
21-Jun-20	Sunday	**Fortnightly Test-03**						
22-Jun-20	Monday	Chemistry	Chemical Bonding & Molecular Structure	Lecture Code: 4.1 Introduction of Chemical Bond	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
		Maths	Binomial Theorem	Lecture Code: 3.1 Introduction, General Terms and its Applications	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
23-Jun-20	Tuesday	Chemistry	Chemical Bonding & Molecular Structure	Lecture Code: 4.1 Introduction of Chemical Bond	Can Revise	YES (MUST)	YES (MUST)	4:00 pm -5:00 pm
		Maths	Binomial Theorem	Lecture Code: 3.1 Introduction, General Terms and its Applications	Can Revise	YES (MUST)	YES (MUST)	5:15 pm -6:15 pm
24-Jun-20	Wednesday	Maths	Binomial Theorem	Lecture Code: 3.2 Rational Terms, Greatest Terms and Multinomial Theorem	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
		Physics	Motion in a Plane	Lecture Code: 4.7 Relative Motion (Contd.)	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
25-Jun-20	Thursday	Maths	Binomial Theorem	Lecture Code: 3.2 Rational Terms, Greatest Terms and Multinomial Theorem	Can Revise	YES (MUST)	YES (MUST)	4:00 pm -5:00 pm
		Physics	Motion in a Plane	Lecture Code: 4.7 Relative Motion (Contd.)	Can Revise	YES (MUST)	YES (MUST)	5:15 pm -6:15 pm

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Test	Total no. of Qs	Time	Test Pattern
Fortnightly Test	30 (10 from each subject)	1 hr	**Single Objective(MCQ Type)**

Daily Schedule for Long Term Students : Class XII Passed for JEE (Main & Advaned) 2021
May to July 2020

Date	Day	Subjects	Chapter Name	Lecture Code & Topic	Read E book	Watch Video Lecture	Solve DPT	Doubt Clearing Session
26-Jun-20	Friday	Physics	Motion in a Plane	Lecture Code: 4.8 Kinematics of Circular Motion	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
		Chemistry	Chemical Bonding & Molecular Structure	Lecture Code: 4.2 Covalent Bonding	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
27-Jun-20	Saturday	Physics	Motion in a Plane	Lecture Code: 4.8 Kinematics of Circular Motion	Can Revise	YES (MUST)	YES (MUST)	4:00 pm -5:00 pm
		Chemistry	Chemical Bonding & Molecular Structure	Lecture Code: 4.2 Covalent Bonding	Can Revise	YES (MUST)	YES (MUST)	5:15 pm -6:15 pm
28-Jun-20	Sunday	**Revision Day**						
29-Jun-20	Monday	Chemistry	Chemical Bonding & Molecular Structure	Lecture Code: 4.3 Hybridisation	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
		Maths	Binomial Theorem	Lecture Code: 3.3 Binomial Series-I	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
30-Jun-20	Tuesday	Chemistry	Chemical Bonding & Molecular Structure	Lecture Code: 4.3 Hybridisation	Can Revise	YES (MUST)	YES (MUST)	4:00 pm -5:00 pm
		Maths	Binomial Theorem	Lecture Code: 3.3 Binomial Series-I	Can Revise	YES (MUST)	YES (MUST)	5:15 pm -6:15 pm
1-Jul-20	Wednesday	Maths	Binomial Theorem	Lecture Code: 3.4 Binomial Series-II	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
		Physics	Law of Motion	Lecture Code: 5.1 Newton's Law of Motion	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
2-Jul-20	Thursday	Maths	Binomial Theorem	Lecture Code: 3.4 Binomial Series-II	Can Revise	YES (MUST)	YES (MUST)	4:00 pm -5:00 pm
		Physics	Law of Motion	Lecture Code: 5.1 Newton's Law of Motion	Can Revise	YES (MUST)	YES (MUST)	5:15 pm -6:15 pm

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Test	Total no. of Qs	Time	Test Pattern
Fortnightly Test	30 (10 from each subject)	1 hr	**Single Objective(MCQ Type)**

Daily Schedule for Long Term Students : Class XII Passed for JEE (Main & Advaned) 2021
May to July 2020

Date	Day	Subjects	Chapter Name	Lecture Code & Topic	Read E book	Watch Video Lecture	Solve DPT	Doubt Clearing Session
3-Jul-20	Friday	Physics	Law of Motion	Lecture Code: 5.2 Conservation of Linear Momentum and Variable Mass System	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
		Chemistry	Chemical Bonding & Molecular Structure	Lecture Code: 4.4 Dipole Moment	YES	Optional	NA	Ask an Answer/ QRC Upload (All Day)
4-Jul-20	Saturday	Physics	Law of Motion	Lecture Code: 5.2 Conservation of Linear Momentum and Variable Mass System	Can Revise	YES (MUST)	YES (MUST)	4:00 pm -5:00 pm
		Chemistry	Chemical Bonding & Molecular Structure	Lecture Code: 4.4 Dipole Moment	Can Revise	YES (MUST)	YES (MUST)	5:15 pm -6:15 pm
5-Jul-20	Sunday	**Fortnightly Test-04**						

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Test Planner (May-July 2020)

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Phase- 01 (PS)

Version 1.0

Test Pattern - Total no. of Qs = 30 MCQs (10 from each subject),
Duration - 1 Hr.

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Test Schedule for Long Term Students : Class XII(Passed) for JEE (Main & Advaned) 2021
May to July 2020

Test Name	Test Date	Day	Topic		
			Physics	Chemistry	Mathematics
Fortnightly Test-01	24-May-20	Sunday	Physical World, Units and Dimensions, Measurement	Laws of Chemical Combination, Mole Concept, Limiting Reagent	Cartesian Form and Algebra, Polar Form, Square Root, Properties of Modulus, Euler's Form, De-Moivre's Theorem, Cube Roots, nth Roots
Fortnightly Test-02	7-Jun-20	Sunday	Introductory Concepts of Kinematics, Motion in 1-Dimension, Motion under Gravity	Measurement of Concentration, Principle of Atom Conservation (POAC), Equivalent Concept	Rotation, Geometry Introduction, Geometry with Complex Numbers, Loci, Miscellaneous Examples
Fortnightly Test-03	21-Jun-20	Sunday	Graphical Representation of Motion, Vector-I, Vector-II	Problems Based on Equivalent Concept, Early Developments, Bohr's Quantum Theory	Miscellaneous Examples on Complex number, Quadratic Equation, Location of Roots
Fortnightly Test-04	5-Jul-20	Sunday	Motion in 2-Dimensions, Projectile Motion (Contd.), Projectile on an Incline	Hydrogen Emission Spectrum, Dual Nature of Radiation, Early Developments	Cubic Equation, Examples, Miscellaneous Examples, Principle of Mathematical Induction

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Thank You

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