

XII PASS JEE LIVE MICROSCHEDULE

CHEMISTRY														
WEEK DURATION	Day	WEEK NO	Class No.	TEST Code	Chapter name	Class Title	Sub Topics	Chapter name	Class Title	Sub Topics	Chapter name	Class Title	Sub Topics	
09-07-2024	Tue	W1	1		Some basic concepts of chemistry	Mole Concept & Concentration terms	Mole Concept, Concentration terms and their interconversion, Limiting reagent	Vectors	Vectors	Vector : - Introduction to vector quantities and types, Addition of vector, Resolution of vector, dot product and cross product of vectors	Basic Mathematics	Inequalities, Logarithm & Modulus function	Wavy Curve Method, Linear Inequalities, Logarithmic function and their properties, Modulus function and their properties	
10-07-2024	Wed		2		Some basic concepts of chemistry	Redox Reactions and concept of Equivalence	Oxidation number, balancing of a redox number, Concept of equivalence, acid- base titration	Unit & dimension	Unit & dimension	Unit & dimension, dimensional analysis, Significant digits, Rounding off, Accuracy and precision, Error Analysis	Quadratic Equations	Nature of roots & Transformation of equation	Introduction, nature of roots of quadratic equations $ax^2 + bx + c = 0$, Relation between roots of an equation, Transformation of equation, Condition for common roots of quadratic equations. Quadratic expression $y = ax^2 + bx + c$, sign of quadratic expression.	
11-07-2024	Thu		3		Some basic concepts of chemistry	redox-titration & Double titration	Volume strength of H ₂ O ₂ , ppm, redox-titration, Double titration	Kinematics	Motion in Straight line -I	Kinematics : - Distance, Displacement, Speed, Velocity, Acceleration, Motion under constant acceleration, motion under gravity, Graph, motion under variable acceleration	Quadratic Equations	value of quadratic equations	maximum and minimum value of quadratic equations, Location of roots, Theory of equation-(cubic and biq), Descartes rule of signs, Quadratic expression in two variables	
12-07-2024	Fri		4		Atomic structure	Rutherford Model and Max plank quantum theory	Rutherford Model, Max plank quantum theory	Kinematics	Projectile Motion	Projectile Motion(horizontal projectile), Projectile Motion(oblique projectile), projectile on an inclined plane	SEQUENCE AND SERIES	Arithmetic progression	SEQUENCE AND SERIES Introduction of Sequence and Series, nth term of A.P., Properties of A.P. Sum of n term of an AP, Arithmetic Mean, nth term of G.P., sum of n term of GP, ..	
MONDAY														
16-07-2024	Tue	W2	5		Atomic structure	Bohr's atomic model	Bohr's atomic model, Bohr's calculation	Kinematics	Relative Motion	Relative motion (1D) & (2D)	SEQUENCE AND SERIES	Properties of G.P & A.G.P.	Properties of G.P., Geometric mean, A.G.P	
17-07-2024	Wed		6		Atomic structure	spectrum and Hydrogen spectrum	Hydrogen spectrum	Kinematics	Kinematics of Circular Motion	Kinematics of Circular Motion	SEQUENCE AND SERIES	Harmonic progression	Introduction to HP, HM	
18-07-2024	Thu		7		Atomic structure	Photoelectric effect and duality of matter and	Photoelectric effect, duality of matter, Uncertainty principle	Newton's Laws of Motion	Laws of motion & FBD	Laws of motion, Normal Reaction, Tension, FBD	SEQUENCE AND SERIES	Relation between AM, GM and HM	Relation between AM, GM and HM	
19-07-2024	Fri		8		Atomic structure	Electronic configuration and Quantum Number	Electronic configuration, Quantum Number	Newton's Laws of Motion	Problems related to contacting bodies & Pseudo force	connected body problems, Pseudo force	TRIGONOMETRIC FUNCTIONS	Introduction of trigonometric functions	TRIGONOMETRIC FUNCTIONS Angle, system of measurement of angles, trigonometric function, Values of trigonometric function for some specific angles	
MONDAY														
23-07-2024	Tue	W3	9		Chemical Bonding and Molecular structures	Chemical Bonding , ionic bond and fajans rule	Chemical bonding ionic bond, Born haber cycle, fajans rule	Newton's Laws of Motion	Constraint relation	Constraint relation	TRIGONOMETRIC FUNCTIONS	Trigonometric ratios	Trigonometric ratios of allied angles, Transforming product into sum or difference, Transforming the sum or difference into product, Domain and ranges of trigonometric function, Graph of trigonometric functions. Trigonometric ratio of multiple angles, sub-multiple angles.	
24-07-2024	Wed		10		Chemical Bonding and Molecular structures	VBT theory and hybridisation	Covalency, hybridisation, VBT	Friction	Static & Kinetic Friction	Friction, Limiting friction, single body problems	TRIGONOMETRIC FUNCTIONS	Maximum and Minimum value of trigonometric expressions	maximum and minimum value of trigonometric expressions, analysis of the form $y = a \sin x + b \cos x$, conditional identities, sum of Trigonometric series.	
25-07-2024	Thu		11		Chemical Bonding and Molecular structures	Coordinate bond and hydrogen bond	Coordinate bond, hydrogen bond	Friction	angle of repose & angle of friction	Friction in case of one body over the other, angle of repose, angle of friction	TRIGONOMETRIC EQUATIONS	Types of trigonometric equation	TRIGONOMETRIC EQUATIONS: Types of trigonometric equation, Principal value, General solution of basic trigonometric equation.	
26-07-2024	Fri		12		Chemical Bonding and Molecular structures	MOT Theory and dipole moment	Dipole moment, percentage ionic character, MOT.	Circular Motion	Dynamics of circular motion	Dynamics of circular motion	TRIGONOMETRIC EQUATIONS	Solution of trigonometric equations	Solution by reducing trigonometric equations to algebraic one's, solution of the form $a \cos x + b \sin x = c$	
29-07-2024	Mon	TEST	LFTM-1		SYLLABUS :					W1 (50%), W2 (50%)				
30-07-2024	Tue	W4	13		Periodic table and properties	Periodic properties and trends	Periodic properties	Work, Power & Energy	Work done by Force	Work done by constant and variable force	TRIGONOMETRIC EQUATIONS	Trigonometric Inequalities	Problems involving more than one equation, equation containing more than one variable, Equation containing different functions and variables, Trigonometric Inequalities.	
31-07-2024	Wed		14		Solutions & Colligative Properties	Raoult's law for non-volatile solute and binary solution	Raoult's law	Work, Power & Energy	Work energy theorem	Work energy theorem, conservation of energy	Straight Line	Basic coordinate geometry	Introduction, distance formula, section formula, area of triangle, Definitions of centroid, circumcentre and orthocentre of triangle	
01-08-2024	Thu		15		Solutions & Colligative Properties	Colligative properties	Colligative properties- RLVP, DFP, EBP, OP, Osmosis	Work, Power & Energy	vertical circular motion	vertical circular motion, power	Straight Line	locus of a point	Collinearity of three points, slope of line, various forms of line, locus of a point, Position of two points relative to a line, Angle between two lines, condition for two lines to be parallel and perpendicular	
02-08-2024	Fri		16		Solutions & Colligative Properties	van't Hoff factor	van't Hoff factor, Ideal, non-ideal solution	Work, Power & Energy	Conservation of linear momentum	Conservation of linear momentum, Impulse, Impulse momentum theorem	Straight Line	image of point	Perpendicular distance of a point from a line, distance between two parallel lines, foot of perpendicular, Image of point w.r.t a line, Condition of concurrency for three lines	
MONDAY														
06-08-2024	Tue	W5	17		Chemical kinetics	Rate of reaction and factors affecting of Rate of reaction	Rate of reaction, factors affecting it. Kinetics of Zero order, first order, second order, nth order reaction	System of Particles and Rotational Motion	Collision and its types	Collision, type of collision, Newton's experimental law of collision, direct collision	Straight Line	homogeneous equation	Pair Straight lines and Locus problem, Transformation of axes, General equation second degree, homogeneous equation of second degree, homogeneous concept.	
07-08-2024	Wed		18		Chemical kinetics	Arrhenius equation	Arrhenius equation	System of Particles and Rotational Motion	Problem practice on collision	oblique collision, Problem practice	Conic section	different form of a circle	Circles Definition of circle, different form of a circle, general equation, Diameter form, parametric form, equation of circle passing through non-collinear points.	
08-08-2024	Thu		19		State of Matter	gas laws	States of matter: gas laws,	System of Particles and Rotational Motion	Centre of mass	Location of centre of mass, Motion of centre of mass	Conic section	length of intercept	Position of a point w.r.t circle, length of intercept on coordinate axes condition for circle touching coordinate axes.	
09-08-2024	Fri		20		State of Matter	M.K.T.G. and Van der Waal equation	Ideal Gas, Diffusion, Van der Waal equation, M.K.T.G.	System of Particles and Rotational Motion	Rotational kinematics	Rotational kinematics, Moment of Inertia of different Bodies, Parallel and perpendicular axis theorem and their applications	Conic section	Equation of tangent to a circle	Line and circle, length of intercept on a line condition for tangency to circle, Equation of tangent to a circle, Length of tangent from an external point, director circle.	
12-08-2024	Mon	TEST	LFTM-2		SYLLABUS :					W3 (40%), W4 (40%), W1 to W2 (20%)				
13-08-2024	Tue	W6	21		State of Matter	Molecular velocity and critical phenomena	Molecular velocity, critical phenomena, liquid state	System of Particles and Rotational Motion	Rotational Dynamics- I	Torque, Dynamics of rigid body	Conic section	Equation of chord	Equation of chord with a given mid-point, Equation of chord of contact, equation of pair of tangents.	
14-08-2024	Wed		22		Thermodynamics and Chemical Energetics:	Basics turns of thermodynamics and First law thermodynamics	Chemical thermodynamics: Basics, Intensive extensive properties, First law	System of Particles and Rotational Motion	Rotational Dynamics- II	Angular momentum, Angular Momentum conservation, Rolling motion, Discussion on Instantaneous axis of rotation and related problems	Conic section	Family of circles	Family of circles, Radical axis, common tangents, angle between two circles, Locus Problems.	
15-08-2024	Thu		15TH AUGUST (THURSDAY) INDEPENDENCE DAY											
16-08-2024	Fri		23		Thermodynamics and Chemical Energetics:	enthalpy and Hess law	Different type of enthalpy, Hess law	Gravitation	Law of gravitation, Gravitational field, Variation of g	Law of gravitation, Gravitational field, Variation of g	Conic section	introduction of Parabola	PARABOLA Standard equation of parabola, parametric equation, position of a point w.r.t parabola, focal distance, focal chord, important points related of focal chord	

MONDAY												
20-08-2024	Tue		24	Thermodynamics and Chemical Energetics:	Second law thermodynamics and spontaneity	Second law and spontaneity	Gravitation	Gravitational potential, Potential energy, Kepler's law and planetary motion	Gravitational potential, Potential energy, Keplers law and planetary motion	Conic section	Equation of tangent in different form	Equation of tangent in different form, condition of tangency, point of intersection of tangent , equation of pair of tangents chord of contact locus problem, properties of parabola
21-08-2024	Wed	W7	25	Equilibrium	Law of mass action and Le chatelier's principle,	Law of mass action, Relation between Kp and Kc, Reaction Quotient Le chatelier's principle,	Mechanical properties of Fluids	Pressure and its variation	FLUID STATICS:Hydroststic pressure,presure variation with height and depth, Pressure variation due to accelerated container, Pascals law	Conic section	Normal & co-normal points	Normal, co-normal points, properties of co-normal points, important points related to parabola. , Equation of chord having mid-point (x1, y1) equation of pair of tangents.
22-08-2024	Thu		26	Equilibrium	relation between Keq & Delta G.	Effect on temp on keq, relation between Keq & Delta G.	Mechanical properties of Fluids	Floatation and Hydrodynamics	Archimedes principle, Condition of floatation, HYDRODYNAMICS:Equation of continuity,Bernoulli's theorem, Application Bernoulli's theorem	Conic section	introduction of Ellipse	ELLIPSE Definition, basics of ellipse, eccentric angle, parametric equation, position of point
23-08-2024	Fri		27	Equilibrium	Concept of acid and base ,ph scale and Ionic product of water	Concept of acid and base, pH, pOH, pKW, Ionic product of water	Mechanical properties of Fluids	Surface Tension and surface energy	Surface tension, Surface energy, Excess of pressure, Capillary rise, questions on S.T, Viscosity	Conic section	Equation of tangent & normal	Condition for tangency, equation of tangent, normal, chord of contact, pair of tangents, properties of ellipse, locus problems, Normal equation of chord having mid-point (x1, y1), pair of tangents, conjugate diameters chord of contact
26-08-2024	Mon	TEST		LCTA-1	SYLLABUS :				W1 TO W6 (100%)			
27-08-2024	Tue	W8	28	Equilibrium	buffer solutionand salt hydrolysis	buffer solution, salt hydrolysis	Mechanical properties of Solids	Stress & Strain	Elasticity, concept of stress-strain, different types of modulus of elasticity, Elastic potential energy of a strained body, Stress-strain in other cases,	Conic section	Introduction of Hyperbola	HYPERBOLA Definition, basics of hyperbola, eccentric angle, parametric equation, position of point
28-08-2024	Wed		29	Equilibrium	Solubility productand, Theory of Indicators	Solubility product, Theory of Indicators	Thermal Properties of Matter	Calorimetry	Calorimetry, Thermal expansion	Conic section	Equation of tangent & Normal	Conjugate hyperbola, condition for tangency, equation of tangent, Normal, chord of contact, pair of tangents.
29-08-2024	Thu		30	Electrochemistry	Electrolysis	Electrolysis, Selective Electrolysis	Thermal Properties of Matter	Heat transfer	Heat transfer	Conic section	Rectangular hyperbola	Rectangular hyperbola
30-08-2024	Fri		31	Electrochemistry	ernst equation and concentration cell	Electrical conductances, Electric Cell, ernst equation , Conc cell	Thermal Properties of Matter	KTG	KTG, heat capacity of gases	Conic section	Asymptotes and Problem Discussion	Parametric form, Tangent and Normal of the Rectemgular hyperbola
MONDAY												
03-09-2024	Tue	W9	32	Hydrogen	Hydrogen,	Hydrogen, Hydrogen Peroxide	Thermal Properties of Matter	First law of thermodynamics &work done in different processes	First law of thermodynamics,work done, Isothermal, adiabatic,polytropic process	Complex numbers	Argand plane & Modulus of a complex number	Complex numbers Definition of a complex number, Argand plane, Algebra of complex number, Modulus of a complex number, properties of modulus
04-09-2024	Wed		33	Hydrogen	Hardness and Volume strength of water	Hardness of water, Problem Practice on Volume strength & degree of hardness.	Thermal Properties of Matter	Cyclic process, Heat engine,Refrigerator	Cyclic process, Heat engine,Refrigerator	Complex numbers	Properties of arguments	Properties of arguments, Conjugate of a complex number,
05-09-2024	Thu		34	S-block elements	Alkali metals	Alkali metals and their compounds	Oscillations & waves	Kinematics of SHM	SHM, velocity, accleration and energy in SHM	Complex numbers	DE MOIVRE'S	Different forms of a complex number,De moivre's theorem.
06-09-2024	Fri		35	S-block elements	Alkaline earth metals	Alkaline earth metals and their compounds	Oscillations & waves	Dynamics of SHM	Dynamics of SHM	Complex numbers	Logarithm of a complex number	Logarithm of a complex number
09-09-2024	Mon	TEST		LFTM-3	SYLLABUS :				W8 & w7(50%), W1 TO W6 (50%)			
10-09-2024	Tue	W10	36	Solid State	Classification of solids	Solid State: 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.	Oscillations & waves	Combination of SHM, Damped Oscillation	Combination of SHM, Damped Oscillation	Complex Numbers	cube roots of unity	Square root of a complex number, cube roots of unity.
11-09-2024	Wed		37	Solid State	Elements of symmetry in cube and Close packed structures	Elements of symmetry in cube : (i) Centre of symmetry, (ii) Plane of symmetry, (iii) Axis of symmetry, Close packed structures : (i) 1-D close packing, (ii) 2-D close packing, 3-D close packing, (AAA... type packing), Voids, types of crystal and defects	Oscillations & waves	Introduction	Wave, General equation of wave, wave in a string,speed of wave in a string, Intensity of wave in a string, power	Complex Numbers	nth roots of unity	nth roots of unity and their properties.
12-09-2024	Thu		38	Organic Chemistry : Some Basic Principle and Techniques	IUPAC	IUPAC	Oscillations & waves	reflection and transmission of wave	standing wave,reflection and transmission of wave	Complex Numbers	Geometry of complex numbers	Geometry of complex numbers, section formulae, condition, for quadrilateral
13-09-2024	Fri		39	Organic Chemistry : Some Basic Principle and Techniques	Electronic displacement	Inductive/electromeric effect	Oscillations & waves	Transverse vibration of string,Sonometer	Transverse vibration of string,Sonometer	Complex Numbers	Rotation of complex number	Rotation of complex number.
MONDAY												
17-09-2024	Tue	W11	40	Organic Chemistry : Some Basic Principle and Techniques	delocalization of pi electron in conjugation system and Hyperconjugation	Resonance & Hyperconjugation	Oscillations & waves	Speed of sound , organ pipe & resonance tube	Speed of Sound, Open and closed organ pipe, resonance tube	Binomial Theorem	Introduction of Binomial theorem	Binomial theorem Introduction: Notation of factorial and definition of C(n, r) and P(n, r) Pascal triangle, Binomial theorem for a positive integer index, Some special forms of binomial theorem.
18-09-2024	Wed		41	Organic Chemistry : Some Basic Principle and Techniques	Aromaticity and Reaction intermediate	Aromaticity, Intermediate product	Oscillations & waves	Beat, intensity of sound, loudness level, Doppler Effect	Beat, intensity of sound, loudness level, Doppler Effect	Binomial Theorem	General term & middle term in the expansion	Problem based on direct expansion, General term in the expansion of (a + x)^n, middle term in the expansion of (a + x)^n
19-09-2024	Thu		42	Organic Chemistry : Some Basic Principle and Techniques	Structural isomerism & Tautomerism	Structural isomerism & Tautomerism	Electrostatics	Electric Charge and its properties	Electric charges,Conservation of charge, Coulomb's law forces between two point charges	Binomial Theorem	Binomial coefficient	Greatest binomial coefficient, numerically greatest term in the binomial expansion.
20-09-2024	Fri		43	Organic Chemistry : Some Basic Principle and Techniques	Geometrical isomerism	Geometrical isomerism	Electrostatics	Superposition principle	forces between multiple charges; superposition principle	Binomial Theorem	Binomial series	properties of Binomial coefficients,Binomial series.
23-09-2024	Mon	TEST		LFTM-4	SYLLABUS :				W9 (40%), W10 (40%), W1 TO W8 (20%)			
24-09-2024	Tue	W12	44	Organic Chemistry : Some Basic Principle and Techniques	Optical Isomerism	Optical Isomerism	Electrostatics	Electric field - I	Electric field,Electric field due to a point charge, Electric field lines,	Permutation and Combinations	Fundamental principle of counting	Permutation and Combination Fundamental principle of counting, multiplication principle
25-09-2024	Wed		45	Hydrocarbons	Electrophilic aromatic substitution on Benzene ring	Electrophilic aromatic substitution	Electrostatics	Electric field - II	Electric field Due to continuous charge distribution. (Linear, Area, Volume)	Permutation and Combinations	Permutation of different and identical things	Addition rule, Permutation of different and identical things
26-09-2024	Thu		46	Hydrocarbons	Effect of substitution on benzene ring and deriuvative of benzene ring	Effect of substitution on benzene ring	Electrostatics	Electric flux & Gauss's law	Electric flux, Gauss's law	Permutation and Combinations	Rank of a word, circular permutation and their applications	Rank of a word, circular permutation and their applications
27-09-2024	Fri		47	Hydrocarbons	Alkane	Alkane	Electrostatics	Applications of Gauss law	applications of Gauss law to find field due to infinitely long uniformly charged straight wire,	Permutation and Combinations	Dearrangement	Combinations, Difference between a permutation, Combination of different type of objects, Divisors, Sum of the numbers formed by n digits. Exponent of a prime number in a factorial, Division and distribution into groups, Number of integral solution of an equation, dearrangement.
MONDAY												
01-10-2024	Tue	W13	48	Hydrocarbons	Preparation method for alkene	Alkene (Preparation)	Electrostatics	Electric field in different cases	Uniformly charged infinite plane sheet, metal plate and uniformly charged thin spherical shell.	Sets and Relations	Introduction of Sets and Relations	Sets and Relations
02-10-2024	Wed											
03-10-2024	Thu		49	Hydrocarbons	physical and chemical properties of alkene	Alkene (properties)	Electrostatics	Electric potential	Electric potential and its calculation for a point charge and system of charges; Equipotential surfaces	Functions	domain & range of function	Function, domain,range
04-10-2024	Fri		50	Hydrocarbons	Alkyne	Alkyne	Electrostatics	Electric potential energy	Electrical potential energy of a system of two point charges in an electrostatic field. Potential of various charge configurations	Functions	Type of function	Type of function even & odd
07-10-2024	Mon	TEST		LCTA-2	SYLLABUS :				W9 TO W12 (80%), W1 TO W8 (20%)			

08-10-2024	Tue		51	Haloalkanes and Halo Arenes	Preparation method of Haloalkane by alkane, alkene	Haloalkane preparation from alkane, alkene	Electrostatics	Relation between field and potential & Electric dipole	Relation between electric field and potential, Electric dipole, Electric field and potential due to a dipole	Functions	Periodic function	Periodic function, composition
09-10-2024	Wed	W14	52	Haloalkanes and Halo Arenes	Preparation method of Haloalkane by Alcohol and Hunsdiecker reaction	preparation of Haloalkanes from Alcohol and Hunsdiecker reaction	Electrostatics	Torque on a dipole	Torque on a dipole in a uniform electric field, potential energy of dipole	Functions	Inverse of function	Inverse of function, inverse trigonometry function, graphs
10-10-2024	Thu											
11-10-2024	Fri											
10 OCTOBER (THURSDAY) ASHTAMI												
11 OCTOBER (FRIDAY) MAHANAVMI												
MONDAY												
15-10-2024	Tue		53	Haloalkanes and Halo Arenes	Nucleophilicity and Nucleophilic substitution reaction on alkyl halides	Basicity vs Nucleophilicity, types of solvent, nucleophilic substitution in alkyl halides (SN1, SN2 and SNi)	Electrostatics	Capacitor	Capacitor, combination of capacitors in series and in parallel	Limit Continuity & Differentiability	Different indeterminate forms	Methods to find limit, Different indeterminate forms
16-10-2024	Wed	W15	54	Haloalkanes and Halo Arenes	Elimination reaction on aryl halides	Elimination reaction (E1, E2, Ei) Elimination vs Substitution, Nucleophilic substitution in aryl halides	Electrostatics	Capacitance	The Dielectrics and electric polarization, Capacitance of a parallel plate capacitor with dielectric medium, between the plates, Spherical capacitor	Limit Continuity & Differentiability	L-ho'pital's rule, sandwich theorem	L-ho'pital's rule, sandwich theorem
17-10-2024	Thu		55	Haloalkanes and Halo Arenes	Preparation method of Alcohol from alkene and alkyl halides	Alcohol preparation: from alkene, alkyl halides,	Electrostatics	Energy storage in a capacitor	Energy stored in a capacitor, Force on dielectric slab, Numerical practice on capacitors.	Limit Continuity & Differentiability	Continuity of function	Continuity of function
18-10-2024	Fri		56	Alcohol, Phenol and Ether	Preparation method of Alcohol by reduction method	Alcohol preparation by reduction of carbonyl compounds (Using LiAlH4, NaBH4, H2-Catalyst, DIBALH), From carboxylic acid and amines	Current Electricity	Electric Current	Electric current, Drift velocity, Ohm's law, Electrical resistance, Resistances of different materials, V-I characteristics of Ohmic and non-ohmic conductors,	Limit Continuity & Differentiability	Different type of discontinuity	Different type of discontinuity
21-10-2024	Mon	TEST		LFTM-5	SYLLABUS :							
W13 (40%), W14 (40%), W1 TO W12 (20%)												
22-10-2024	Tue		57	Alcohol, Phenol and Ether	chemical reaction of alcohols(including glycol and glycerol)	Reaction of alcohols including glycol and glycerol: reaction with HX, dehydration	Current Electricity	Electrical Resistance and resistivity	Electrical resistivity, Colour code for resistors; Series and parallel combinations of resistors; Temperature dependence of resistance.	Limit Continuity & Differentiability	Introduction of Differentiability	Differentiability
23-10-2024	Wed	W16	58	Alcohol, Phenol and Ether	oxidation and reduction of alcohol and ether	Alcohol: acetylation, oxidation and reduction, Ethers preparation and reactions (excluding epoxides)	Current Electricity	Electric cell and its combination	Electric Cell and its Internal resistance, potential difference and emf of a cell, combination of cells in series and in parallel. Kirchhoff's laws and their applications.	Limit Continuity & Differentiability	Relation between continuity & differentiability	Relation between continuity & differentiability
24-10-2024	Thu		59	Alcohol, Phenol and Ether	epoxide and Phenol	Epoxides, Preparation of Phenols, nature of phenol	Current Electricity	Heating effect of current	Heating Effect of Current, Maximum power theorem, RC Circuit (charging and discharging of capacitor derivations only)	Limit Continuity & Differentiability	Differentiation	Differentiation
25-10-2024	Fri		60	Alcohol, Phenol and Ether	Chemical properties of Phenols	Chemical properties of Phenols, Pinacol pinacolone rearrangement	Current Electricity	RC circuit	RC circuit (numerical practice), Electrical Instruments Galvanometer (Ammeter, Voltmeter)	Application of Derivatives	Application of derivatives	Application of derivatives , differentiation, rate of change
MONDAY												
29-10-2024	Tue	W17	61	Carbonyl compounds	preparation method of carbonyl compounds	Carbonyl compounds preparation from alkane, alkyne, Grignards Reagent and acid derivatives	Current Electricity	Wheatstone bridge, Metre bridge. Potentiometer - principle and its applications.	Wheatstone bridge, Metre bridge. Potentiometer - principle and its applications.	Application of Derivatives	Tangent and normal	Tangent and normal, Angle between two curves
30-10-2024	Wed											
31-10-2024	Thu											
01-11-2024	Fri											
30 OCT (WEDNESDAY) CHHOTI DIWALI												
31 OCT (THURSDAY) DIWALI												
01 NOV (FRIDAY) GOVARDHAN POOJA												
05-11-2024	Tue		62	Carbonyl compounds	Nucleophilic Addition reaction of carbonyl compound	Addition reaction of carbonyl compound with HCN, NaHSO3 and NH3 derivatives	Moving charges and Magnetism	Biot - Savart law and its application	Biot - Savart law and its application to current carrying circular loop.	Application of Derivatives	monotonicity, Mean value theorem and L Theorem	Rate of change of quantities, Errors and approximation, monotonicity, Mean value theorem and L Theorem
06-11-2024	Wed	W18	63	Carbonyl compounds	Oxidation of aldehydes	Oxidation of aldehydes (Tollen's Fehling, Benedict solution, KMnO4), Oxidation of ketones with KMnO4	Moving charges and Magnetism	Ampere's law and its application	Ampere's law and its applications to infinitely long current carrying straight wire and solenoid.	Application of Derivatives	Minima and maxima	Application of derivatives, Minima and maxima
07-11-2024	Thu		64	Carbonyl compounds	Reduction of carbonyl compound	Baeyer Villiger oxidation, Reduction of carbonyl compound into alkane	Moving charges and Magnetism	Force on a moving charge	Force on a moving charge in uniform magnetic and electric fields. Cyclotron.	Application of Derivatives	Application of minima and maxima	Application of minima and maxima
08-11-2024	Fri		65	Carbonyl compounds	enolate ion and enol from Carbonyl compound	Carbonyl compound name reactions: Aldol condensation, cannizzaro's reaction,	Moving charges and Magnetism	Force on a current-carrying conductor	Force on a current-carrying conductor in a uniform magnetic field. Force between two parallel current-carrying conductors-definition of ampere	Integrations	Indefinite integration	Indefinite integration
11-11-2024	Mon	TEST		LFTM-6	SYLLABUS :							
W15 (40%), W16 (40%), W1 TO W14 (20%)												
12-11-2024	Tue		66	Carbonyl compounds	name reaction and condensation reaction of Carbonyl compound	Perkin condensation, haloform reaction, claisen condensation	Moving charges and Magnetism	Magnetic moment & Torque	Magnetic moment, Torque experienced by a current loop in uniform magnetic field;	Integrations	Different forms of integration	Different forms of integration
13-11-2024	Wed	W19	67	Carboxylic acid and Derivatives	carboxylic acid	Preparation & properties of carboxylic acid	Moving charges and Magnetism	Moving coil galvanometer	Moving coil galvanometer (working principle), its current sensitivity, Potential energy of loop in magnetic field	Integrations	Standard forms	Standard forms
14-11-2024	Thu		68	Amines	Amines	Amines	Magnetism and Matter	Magnetism and Matter - I	Bar magnet as an equivalent solenoid, magnetic field lines; Earth's magnetic field and magnetic elements. Para-, dia- and ferro- magnetic substances.	Integrations	Partial fraction integration of irrational function	Partial fraction Integration of irrational function
15-11-2024	Fri		69	SOME BASIC PRINCIPLES AND TECHNIQUES	Practical organic Chemistry	Practical organic Chemistry	Magnetism and Matter	Magnetism and Matter - II	Magnetic susceptibility and permeability, Hysteresis, Electromagnets and permanent magnets.	Integrations	Definite integral	Definite integral
MONDAY (NCTA-02)												
19-11-2024	Tue		70	SOME BASIC PRINCIPLES AND TECHNIQUES	Qualitative & Quantative Analysis	Qualitative & Quantative Analysis	Electromagnetic Induction	Faraday's laws of EMI, Lenz's Law,	Faraday's laws of EMI, Lenz's Law,	Integrations	Properties of Definite integral	Properties of Definite integral
20-11-2024	Wed	W20	71	SOME BASIC PRINCIPLES AND TECHNIQUES	Qualitative & Quantative Analysis	Qualitative & Quantative Analysis	Electromagnetic Induction	Motional EMF	Motional EMF, Time varying magnetic field	Integrations	Properties of definite integral	Properties of definite integral
21-11-2024	Thu		72	Biomolecules	Carbohydrates	Carbohydrates	Electromagnetic Induction	Induction & LR circuit	Self induction, Mutual induction, LR circuit with DC source, LC oscillations, Eddy currents	Integrations	Leibnitz rule	Leibnitz rule
22-11-2024	Fri		73	Biomolecules	Amino acid & protein	Amino acid & protein	Alternating Currents	Alternating Currents - I	Alternating currents, peak and rms value of alternating current/ voltage; reactance and impedance; R, L, C, LR, RC, LC and LCR series circuit,	Integrations	Limit of a sum	Limit of a sum
25-11-2024	Mon	TEST		LCTA-3	SYLLABUS :							
W13 TO W17 (80%), W1 TO W12 (20%)												
26-11-2024	Tue		74	Polymers	Polymers	Polymers	Alternating Currents	Alternating Currents - II	Resonance; Quality factor, power in AC circuits, wattless current. AC generator and transformer.	Integrations	Area under curves	Area under curves
27-11-2024	Wed		75	Metallurgy	Metallurgy	Metallurgy	Ray Optics	Reflection on plane surface	Reflection on plane surface	Integrations	Area under curves	Area under curves
28-11-2024	Thu	W21	76	d & f-block elements	Transition metals (d&f block elements)	Transition metals (d&f block elements)	Ray Optics	Reflection on spherical surface	Reflection on spherical surface, mirror formula	Differential Equations	Differential equation	Differential equation
29-11-2024	Fri		77	d & f-block elements	Trends & properties	Trends & properties	Ray Optics	Refraction of light at plane surface	Refraction of light at plane surface	Differential Equations	Different types of differential equation	Different types of differential equation
MONDAY (NFTM-05)												

03-12-2024	Tue		78	d & f-block elements	General physical and chemical properties of K ₂ Cr ₂ O ₇ , KMnO ₄ and Cu ²⁺	Reaction chemistry of KMnO ₄ , K ₂ Cr ₂ O ₇ , Cu ²⁺	Ray Optics	Total internal reflection and its applications	Total internal reflection and its applications	Vectors	Introduction Types of vectors	Introduction Types of vectors, Multiplication by a Scalar, Addition of Vectors, linear combination, linearly dependent and independent vectors, Section Formula.
04-12-2024	Wed	W22	79	Coordination compounds	Coordination compound, IUPAC, Werner's theory	Coordination compound, IUPAC, Werner's theory	Ray Optics	Prism	Refraction through prism, Deviation and Dispersion of light by a prism	Vectors	scalar product and vector product	the scalar product and vector product of two Vectors
05-12-2024	Thu		80	Coordination compounds	Hybridization	Hybridization	Ray Optics	Refraction on curved surfaces	Refraction on curved surface, Lens	Vectors	Scalar and vector triple product	Scalar and vector triple product and their geometrical interpretation
06-12-2024	Fri		81	Coordination compounds	CFT	CFT	Ray Optics	Lens and its combination	Lens Formula, Magnification, Power of a Lens, Combination of thin lenses in contact, combination of lens & Mirror	Vectors	solving vector equation	Reciprocal system of vectors, solving vector equation
09-12-2024	Mon	TEST		LFTM-7	SYLLABUS :							
10-12-2024	Tue		82	Coordination compounds	Magnetism of complex	Magnetism of complex	Ray Optics	Cutting & shifting of lenses, Silvering of lens,	Cutting & shifting of lenses, Silvering of lens,	3D-Geometry	Introduction of 3D- Geometry	Equation of a line in space, Angle between two lines, position of point with respect to a line, foot of perpendicular., Image and perpendicular distance of a point with respect to a line Two lines, points of intersection,shortest distance between two lines, coplanarity of two lines
11-12-2024	Wed	W23	83	Coordination compounds	Isomerism of complex compounds	Isomerism of complex compounds	Ray Optics	Optical Instrument	Optical Instrument (Microscope and Astronomical Telescope (reflecting and refracting) and their magnifying powers).	3D-Geometry	Plane	Plane, equations of plane in normal form, equation of plane perpendicular to a given vector and passing through a given point, equation of a plane through three non collinear points, equation of plane intercept form, equation of plane through point of intersection of two given planes, Angle between planes, Angle between a line and a plane.
12-12-2024	Thu		84	P-block	Boron Family	Gr - 13	Wave Optics	YDSE	Young's double slit experiment and expression for fringe width, coherent sources and sustained interference of light.	3D-Geometry	Distance of a point from a plane	Distance of a point from a plane, point and plane, foot of perpendicular, image, perpendicular distance of a point with respect to a plane, equation of line through the line of intersection of two planes
13-12-2024	Fri		85	P-block	Boron Family and Carbon Family	Gr - 13+14	Wave Optics	Interference and Polarisation	Interference in thin films, Polarisation, plane polarized light; Brewster's law, uses of plane polarized light and Polaroids,	Matrices	Introduction of Matrices	Matrices, types of matrices
17-12-2024	Tue		86	P-block	Carbon Family	Gr - 14	Wave Optics	Diffraction	Diffraction due to a single slit, width of central maximum., Polarisation	Matrices	cramer's rule	System of equations-(Using inverse and cramer's rule)
18-12-2024	Wed		87	P-block	nitrogen Family	Gr - 15	Electromagnetic waves	EMW	EMW	Determinants	Properties of determinants	Determinants of matrix of order one, two, three. Properties of determinants
19-12-2024	Thu	W24	88	P-block	nitrogen Family	Gr - 15	Dual Nature of Matter	Photoelectric effect	Photoelectric effect, Hertz and Lenard's observations; Einstein's photoelectric equation; particle nature of light	Determinants	Products of determinants	Area, Minor and Co-factors, Products of determinants, differentiation of determinant
20-12-2024	Fri		89	P-block	oxygen Family	Gr - 16	Dual Nature of Matter	Wave Particle Duality	Radiation pressure and questions on Photo electric effect, Matter waves-wave nature of particle, de Broglie relation.	Determinants	Product of matrices and its properties, Transpose of a matrix	Matrix as an array, Types of matrix, Product of matrices and its properties, Trace of matrix, Transpose of a matrix, Symmetric and Skew Symmetric matrix
23-12-2024	Mon	TEST		LFTM-8	SYLLABUS :							
24-12-2024	Tue		90	P-block	oxygen Family	Gr - 16	Atoms	Atomic Models	Alpha-particle scattering experiment; Rutherford's model of atom; Bohr model	Probability	Introduction of Probability, Addition and multiplication theorem	Introduction of Probability, Addition and multiplication theorem
25-12-2024	Wed	W25										
26-12-2024	Thu		91	P-block	hallogen Family	Gr - 17	Atoms	Energy levels, hydrogen spectrum	Energy levels, hydrogen spectrum	Probability	Baye's theorem	Conditional Probability, Baye's theorem
27-12-2024	Fri		92	P-block	hallogen Family	Gr - 17+18	Nuclei	Radioactivity -I	Radioactivity-alpha, beta and gamma particles/rays and their properties; nuclear reaction	Mathematical reasoning	Mathematical reasoning	Mathematical reasoning
31-12-2024	Tue		93	Surface Chemistry	Surface chemistry	Surface chemistry	Nuclei	Radioactivity -II	Radioactive decay law. Mass-energy relation, mass defect; binding energy per nucleon and its variation with mass number, nuclear fission and fusion.	Statistics	Statistics	Statistics
01-01-2025	Wed	W26										
02-01-2025	Thu		94	Surface Chemistry	Surface chemistry	Surface chemistry	Semiconductors and Electronics	Semi - conductors	Semiconductors; semiconductor diode-I characteristics in forward and reverse bias; diode as a rectifier; 1-V characteristics of LED, photodiode, solar cell and Zener diode; Zener diode as a voltage regulator	Properties and solution of triangle	Properties and solution of triangle	Properties and solution of triangle
03-01-2025	Fri		95	Chemistry in Everyday life	Chemistry in Everyday life	Chemistry in Everyday life	Semiconductors and Electronics	Logic Gates	Logic gates (OR, AND, NOT, NAND and NOR). Transistor as a switch.	Height and Distance	Height and Distance	Height and Distance
06-01-2025	Mon	TEST		LFTM-9	SYLLABUS :							
07-01-2025	Tue	TEST		GTM-01	SYLLABUS :							
08-01-2025	Wed	TEST		GTM-02	SYLLABUS :							
09-01-2025	Thu	TEST		GTM-03	SYLLABUS :							
10-01-2025	Fri	TEST		GTM-04	SYLLABUS :							
11-01-2025	TEST			GTM-05	SYLLABUS :							
12-01-2025	Sun	TEST		GTM-06	SYLLABUS :							
13-01-2025	Mon	TEST		GTM-07	SYLLABUS :							
14-01-2025	Tue	TEST		GTM-08	SYLLABUS :							
15-01-2025	Wed	TEST		GTM-09	SYLLABUS :							
16-01-2025	Thu	TEST		GTM-10	SYLLABUS :							