JEE MAIN + ADVANCED BATCH			
DATE	MATHS MANISH SIR 4:00 PM TO 5:30 PM	CHEMISTRY AYUSHI MA'AM 2:00 PM TO 3:30 PM	PHYSICS ADITYA SIR 5:30 PM TO 7:00 PM
	LIMIT, CONTINUTY DIFFERENTIABILITY		
6-Jan-22	Limit part -1		
		CHEMISTRY IN EVERYDAY LIFE	Rolling motion Part
7-Jan-22	Limit part -2	Chemistry in Everyday life	
8-Jan-22	Limit part -3		
		REDOX REACTION	Gravitation
10-Jan-22	Continuity of functions, Intermediate value theorem.	Types of reaction, OXIDATION NO.	Introduction, Universal law of Gravitation, Gravitational constant, Acceleration due to gravity of the earth. Acceleration due to gravity below & above the surface of the earth.
11-Jan-22	Introduction of Differentiability, Geometrical meaning of the derivative.	concept of equivalent	Gravitational potential energy, Escape speed, Earth's satellite, Energy of an orbiting satellite.
12-Jan-22	Relation between differentiability and continuty, Algebra of differentiable function.	balancing	Geostationary & polar satellite, Weightlessness, Kepler's laws.
	APPLICATION OF DERIVATIVES		Mechanical Properties of Solids

13-Jan-22	Derivatives as a Rate Measure. Tangent, Normal	iodometric and iodimetric, double titration, back titration	Introduction, Elastic behavior of solids, Stress & strain And Numericals
14-Jan-22	Angle Between curves length of tanget normal & Subtangent & Subnormal	hardness of water, oleum volume, strength	Hooke's law, Stress-strain curve, Elastic moduli, and Numericals
		S-BLOCK	
15-Jan-22	Rolle's Theorem and means value theorem,		Thermal Properties of Matter
17-Jan-22	Monotonicity	Alkali metal	Introduction, Temperature & Heat, Measurement of temperature, Ideal gas equation & absolute temperature,
18-Jan-22	Maxima and minima 1	alkaline earth metal	Thermal expansion.Specific heat capacity, Calorimetry, Change of state.
		ENVIROMENTAL CHEMISTRY	Heat transfer, Conduction, Convection, Radiation, Stefan's Law.
19-Jan-22	Maxima and minima 2	environmental chemistry	Wien's law, Newton's law of cooling
	INDEFINITE INTERGRALS		Thermodynamics

20-Jan-22	INDEFINITE INTERGRAL 1	polymers	Introduction, Thermal equilibrium, Zeroth law of thermodynamics, Heat internal energy and work, First law of thermodynamics.Numerical.
21-Jan-22	INDEFINITE INTERGRAL 2	HYDROGEN	Thermodynamic state variables & equation of state, Thermodynamic processes,Specific heat capacity.
22-Jan-22	INDEFINITE INTERGRAL 3		
		P-BLOCK	
24-Jan-22	INDEFINITE INTERGRAL 4	Boron family	Second law of thermodynamics, Reversible and irreversible process.Heat engines, Refrigerators & heat pumps, Carnot's Engine.
	DEFINITE INTEGRAL		
25-Jan-22	Definite Integral Basic	Boron family	Kinectic Theory of Gases.
			Mechanical Properties of Fluids
27-Jan-22	Properties of Definite Integral Part – 1	carbon family	Introduction, Pressure, Pascal's law.
28-Jan-22	Properties of Definite Integral Part – 2	Carbon family	Archimedes principle, Streamline flow, Bernoulli's principle.

29-Jan-22	limit as a sum using Definite integral, Definite integral limit as a sum,		Viscosity, Reynolds number,Surface tension.
30-Jan-22	Mixed problems		
	AREA UNDER CURVE	ORGANIC CHEMISTRY (part 6)	
31-Jan-22	Area under curve	some important terms of organic	Energy in simple harmonic motion.
	DIFFERENTIAL EQUATION		
1-Feb-22	Order & Degree & Formation of the differential equation.	nomenclature	Time Period and its numerical.
2-Feb-22	Solution of the differential equation by different method, Variable Separation. Homogeneous Differential Equation & Linear Differential Equation.	nomenclature	Damped simple harmonic motion, Forced oscillations & resonance.
			Waves
3-Feb-22	Orthogonal Trajectory & Geometrical Application. Other applications of differential equation	nomenclature	Introduction, Transverse & longitudinal waves.
	STRAIGHT LINE		

4-Feb-22	Distance formula, Section formula Centroid, circumcentre, orthocentre, incentre, excentres & Area of a triangle whose vertices are given	resonance	Displacement relation in a progressive wave, The speed of a travelling wave.The principle of super position of waves.
5-Feb-22	Locus, Slope of a straight lines, Intercepts on axes made by a straight line and angle between straight lines		
7-Feb-22	Different forms of straight lines, Length of perpendicular from a point to a straight line Foot of perpendicular form a point to a line, Image of a point about a line	resonance, tautomerism,%enol	Reflection of waves, standing waves.
8-Feb-22	Equation of reflected ray, Concurrency of line and Family of Lines, Introduction of angle Bisectors & problems	inductive effect,hyperconjugation, electromeric effect	Beats, Tuning fork,Doppler's Effect.
			Electric Charges and Electric Field
9-Feb-22	Problem on Angle Bisector, Shifting of origin & Rotation of Axes, concept of Homoqenization.	baeyer strain theory, bredt angle, steric hindrance,	Introduction, Electric charges, Conductors and insulators charging by induction,Basic properties of electric charges,
	CIRCLE		

10-Feb-22	Equation of Circle in Different Forms Parametric Equation of a Circle, Intercepts made by a circle on axes.	dipole moment, stability of alkenes, heat of hydrogenation, bond length	Coulomb's law, Forces between Multiple charges, Electric field lines.
11-Feb-22	Point and circle, Line and circle	types of intermediates, stability,rearrangement, acidic strength,basic strength	Electric field due to Continuous charge distribution,
12-Feb-22	Tangent and Normal		Electric Dipole, Dipole in a uniform external field.
		ISOMERISM	
14-Feb-22	Chords of Contact, Chord Bisected at a Given Point, Pair of Tangents,	Structural isomerism	
			Electric Potential and Capacitance
15-Feb-22	Position of Two Circles w.r.t each other, Common Tangents (Geometry) & Common Chord, Length of Common Chord.	stereoisomerism	Introduction, electrostatic potential, potential due to a point charge,potential due to a system of charges
16-Feb-22	Angle Between two Circles, Orthogonal Circles & Radical Axis. Radical centre. Family of Circles & Related problems	stereoisomerism	potential due to an electric dipole, Equipotential surfaces
	PARABOLA	HYDROCARBON	

17-Feb-22	Introduction of Conic & Standard Forms of the Parabola. Vertex focus, Directrix and Latus Rectum etc.	Alkanes m.o.p, physical properties	Potential energy in an external field
18-Feb-22	Position of a line w.r.t. Parabola.	alkanes chemical properties	Electrostatics of conductors, dielectrics and polarization
19-Feb-22	Tangents at a Point, Properties related with different forms of tangent to a parabola.	alkenes m.o.p, physical propeerties	
21-Feb-22	Pair of Tangents, Chord of Contact, Equation of the Chord whose MID-Point is given.	chemical properties alkene	capacitors and capacitance, The parallel plate capacitor, Energy stored in a capacitor,
22-Feb-22	Equation of Normal to the Parabola and Important Results	alkyne, benzene	Effect of dielectrics on capacitance, Combination of capacitors,
	ELLIPSE	HALOALKANE HALOARENE	Current Electicity
23-Feb-22	Standard equation of Ellipse and it's related discussions, General Equation of Ellipse.		Introduction, Electric current, Electric currents in conductors
24-Feb-22	Parametric Equation, Auxiliary circle, Eccentric angle, Equation of Chord, Focal Distance, Focal Chord.	INTRO, M.O.P	Drift of electrons and the origin of resistivity,Ohm's law,Limitations of Ohm's law,

25-Feb-22	Position of a point and a line w.r.t. Ellipse and Different form of Tangents, Director Circle.	PHYSICAL PROPERTIES, CHEMICAL PROPERTIES	Resistivity of various material, Temperature dependence of resistivity, Electrical energy power
26-Feb-22	Equation of Chord of Contact, Chord with Mid Point & Pair of Tangents.		Combination of resistors, series and parallel, Cells, emf. Internal resistance, cells in series and in parallel
28-Feb-22	Equation of Normal and Related Properties.	CHEMICAL PROPERTIES	Kirchhoff's laws, Wheatstone bridge and Numericals
	HYPERBOLA		
1-Mar-22	Standard equation of Hyperbola & it's Conjugate Hyperbola.Parametric form, Auxiliary circle, Parametric angle, Equation of Chord, Focal Distance, Focal Chord.	haloarene	Meter Bridge, Potentiometer
		ALCOHOL, PHENOL AND ETHERS	Magnetic effects of current
2-Mar-22	Position of a point and a line w.r.t. Hyperbola and Different form of Tangents, Director Circle.	INTRO, M.O.P, physical properties	Introduction magnetic force, Motion in a magnetic field.
3-Mar-22	Tangent & Normal. Chords of Contact, Chord with given Midpoint and pair of Tangents.	chemical properties	Motion in combined Electric and Magnetic fields.

4-Mar-22	Asymptotes & Rectangular Hyperbola.	phenols	Magnetic field due to a current element, Biot-savart's law, Magnetic field on the axis of a circular current loop
	COMPLEX NUMBER	ALDEHYDE AND KETONE	
5-Mar-22	Argument, Modulus Conjugate of a C.N. And its Different forms		
7-Mar-22	Algebra of Complex Number and it's Geometrical Representation,	INTRO, M.O.P Of aldehyde and ketone	Ampere' Circuital Law, The solenoid and the toroid
8-Mar-22	Properties of Argument, Modulus, Conjugate and its Application.	m.o.p of aldehyde, m.o.p of ketone	Force between two parallel currents, Torque on current loop,
9-Mar-22	DE-Moiver's Theorem, Cube roots, Nth Roots of unity and its application	chemical properties of aldehyde and ketone	Magnetic dipole, Moving coil Galvanometer
			Magnetism And Matter, EMI
10-Mar-22	Concept of Rotation, Geometrical Application in Complex Plane.	aromatic aldehyde and ketone	The Earth's magnetism, Tangent law and its application
	BINOMIAL THEOREM	CARBOXYLIC ACID	
11-Mar-22	Binomial Expansion & it's General Term, Middle Term Greatest Binomial Coefficient.	PROPERTIES, MOP, Physical properties and chemical properties	The bar magnet, Magnetism and Gauss's Law

12-Mar-22	Series of binomial Coefficient, Sum of the series		
		AMINE	
14-Mar-22	Sum of the series of coefficients by comparing the coefficients of some power of x in an expansion.	INTRO, m.o.p	Magnetization and magnetic intensity
15-Mar-22	Checking Divisibility & Finding Remainder and, Binomial Theorem for any Rational Index, Multinomial Expansion	basicity, physical properties, chemical properties	Introduction, the experiments of Faraday and Henry, Magnetic Flux, Faraday's laws of induction,
	Permutation & combination		
16-Mar-22	Fundamental Principle of Counting, Definition of Permutation & combination,	diazonium salt, aniline	Lenz's law and conservation of energy,
		SOLUTION	
17-Mar-22	Permutation of things under different conditions,	Intro	Motional electromotive force
18-Mar-22			Inductance, AC Generator
			AC Current
19-Mar-22	Circular Permutation & General Selection, Restricted Selection, Problems based on above concepts	henry law, raoult law	Introduction AC voltage applied to a resistor representation of AC current and voltage by rotating vectors -phasors

21-Mar-22	All possible selections, Number of Divisors	deviation from raoult law, colligative property	AC voltage applied to an inductor, AC voltage applied to a capacitor, AC voltage applied to a series LCR circuit, Power in AC circuit,
22-Mar-22	Division and distribution of Different and Identical things.	vanthoff factor, numerical	The power factor, LC Oscillations, transformers.
		ELECTROCHEMISTRY	EM Waves
23-Mar-22	Multinomial Theorem, , Problems on derrangement	galvanic cell nd nernst equation	Introduction, Displacement currents, Electromagnetic waves, Electromagnetic spectrum.
	MATRICES & DETERMINANTS		Dual Nature
24-Mar-22	Defination & Types, algebra of the matrices.	numerical practice, product of electrolysis	Introduction, electron emission, photoelectric effect, experimental study of photoelectric effect, photoelectric effect and Einstein's photoelectric equation
25-Mar-22	Transpose of a Matrix Special Matrices	conductance, faraday law	Particle nature of light the photons, Wave nature of matter, Davisson and Germer Experiment.

26-Mar-22	Determinants & Properties of Determinant.	CHEMICAL KINETICS	Introduction, alpha particle scattering and Rutherford's nuclear model of atom, Atomic spectra, Bohr model of the hydrogen atom, the line spectra of the hydrogen atom, de Broglie's explanation of Bohr's second postulate quantization
			Nuclie
28-Mar-22	Differentiation and Integration on determinants, Cramer's rule, Solution of Linear Equation& Mixed Problems.	Differential rate equation, rate law, order, molecularity	Introduction, Atomic masses and composition of nucleus, size of the nucleus, Mass energy and nuclear binding energy
29-Mar-22	Adjoint & inverse of a Square Matrix,	order of reaction, maxweell curve, arrhenious equation	Nuclear force, Radioactivity, Nuclear energy.
			Semiconductor
30-Mar-22	Solutions of System of Simultaneous Linear Equations	parallel, consecutive reaction	Introduction, Classification of metals conductors and semiconductors, Intrinsic semiconductor, Extrinsic semiconductors P – N
	VECTOR		

31-Mar-22	Introduction of Vectors and Algebra Vectors. Linear Combinations, Collinearity and coplanarity, Section formula.	NUmerical practice	semiconductor diode.Application of junction diode as a rectifier special purpose P–N junction diodes.Junction transistors, digital electronics and logic gates, Integrated circuits
			Ray Optics
1-Apr-22	Scalar Product of two vectors (Dot Product), Projection of a Vector.	Numerical practice	Introduction, Reflection of light spherical mirrors
2-Apr-22	Vector Product (Cross), Properties, Scalar triple product & Properties.	d and f BLOCK	Refraction, Refraction at spherical surface and by lenses
4-Apr-22	Vector Triple product, Reciprocal system of vectors, Vector Equation	INTRODUCTION	Refraction through a prism
	THREE DIMENSIONAL GEOMETRY		Total internal reflection
5-Apr-22	Line-1	properties	Dispersion by prism
6-Apr-22	Line- 2	KMnO4, K2Cr2O7	Microscope,Telescope
7-Apr-22	Plane – 1	F BLOCK	
		CO-ORDINATION COMPOUND	
8-Apr-22	Plane – 2	INTRO, werner theory	
	PROBABILITY		
9-Apr-22	Introductions of probability	nomenclature, LiGands, VBT	Wave optics

11-Apr-22	Conditional Probability & independent events	cft, Isomerism	Introduction, Huygens Principle
12-Apr-22	Total Probability , Bayes Theorem	thermodynamics of coordination compound, synergic bonding, application	Refraction and Reflection of plane waves using Huygens principle.
13-Apr-22	Binomial Distribution for successive events.		Coherent and incoherent addition of waves,Interference of light waves and Young's experiment
	STATISTICS & MATHEMATICAL REASONING	BIOMOLECULES	
14-Apr-22	Statistics – 1	INTRO, CARBOHYDRATES	Diffraction, Polarization.
15-Apr-22	Statistics – 2	proteins, amino acid, nucleic acid	
16-Apr-22	Mathematical Reasoning -1		
18-Apr-22	Mathematical Reasoning – 2		