JEE Super Saver Course - 10th to 11th Moving
Physics by Muqeem Khan (MK) Sir

Physics Foundation			
S.No.	**Chapter Name**	**Lecture No.**	**Lecture Name**
1	Motion	1	Uniform Motion and Non Uniform Motion, speed ,Velocity, Acceleration
		2	Graphs, Equation of motion, Uniform circular motion, Discussion
2	Force and Laws of Motion	1	Laws of motion
		2	Conservation of momentum, Discussion
3	Gravitation	1	Law of gravitation,Free fall , mass and weight,Kepler' law
		2	Fluids, Discussion
4	Work Power Energy	1	Work, Energy,Law of conservation, Power
5	Sound	1	Production of sound, Propagation ,Speed of sound in different media,Reflaction, Human ear
6	Electricity	1	Ohm's law,Combination of resitance,electric power
		2	Discussion
7	Magnetic effects of current	1	Magnetic field and field lines,Magnetic field due to current carrying wire,straight conductor, circular loop
		2	Force on a current- carrying conductor in a magnetic field,Discussion
8	Light	1	Reflection of light,Spherical mirrors,Image formation by spherical mirrors,Refraction of light
		5	Refractive index,refraction by spherical lenses,Image formation by spherical lenses,Discussion
9	The Human Eye and the colorful word	1	The Human Eye,Power of Accommodation,Deffec of vision and their correction,Prism, Scattering

Physics 11th			
S.No.	**Topic Name**	**Lecture Level**	**Lecture Name**
1	Basic Maths and Error Analysis	1	Angle,Unit of Angle,Trignometric Ratios,Basic Formulae
		2	Trigonometry Formula,Coordinate Geometry-Distance Formula,Equation of Line
		3	Coordinate Geometry-Line Intercept Form,Circle, Ellipse, Parabola, Algebra- Basic Formula, Quadratic Equation
		4	Binomial Theorem,Arithmetic Progression,Geometric Progression, Logarithm,Differentiation
		5	Trigonometry,Product Rule of Differentiation,Quotient Rule of Differentiation,Function of Function
		6	Maxima Minima,Integration Formula,
		7	Integration By Parts, Product Rule Of Integration,Measurement And Error, Absolute Error, Friction error, Percentage Error,
		8	Error In Addition,Error in Substraction,Error in Multiplication/Division/General,Least Count Error,Significant Digits,

		9	Rounding of Significant Digits,Addition and Subtraction in Significant Digit,Multiplication and Division Significant Digits
2	Unit and Dimension	1	Physical Quantities,Fundamental,Supplement,Derived Physical Quantities System Of Unit,Base Unit,Derived Units
		2	Dimension of Fundamental Quantities,Derived Quantities,Some Applications of Dimensional Analysis
		3	Application of Derivatives,Application of Dimensional Analysis
		4	Any Set as Fundamental Set of Physical Quantities,
3	Vectors	1	Vector Representation,Vector Addition and Subtraction
		2	Components of Vector, Unit Vector
		3	Multiplication of Vector Dot/Scalar Product,
		4	X- Product or Vector product
		5	Scalar Triple Product,Vector Triple Product,Lami""s Theorem
4	Kinematics	1	Position Vector Instantaneous Velocity Speed Acceleration, Average Velocity Average Speed Turning Point
		2	Uniform Motion and its Graph-1D,Non-Uniform Motion Constant Acceleration-1D,Motion Under Gravity
		3	Example on Constant Acceleration,Study of Graph with Constant Acceleration x-t,v-t,a-t
		4	Variable Acceleration,Graph Based Problems,Application of Graph
		5	Problem Based on Graph - Average Velocity/ Average Speed -a-v-x ,Reaction Time , Quadratic Equation Application
		6	Projectile Motion,Projectile Motion-Equation of Trajectory,Max range,Graphical Problem
		7	Projectile on incline, Effect of Wind
		8	Relative Motion-1D,Constant Velocity,Motion Under Gravity
		9	Elevator Bolt Problem,relative Motion in Projectile
		10	Relative Projectile Time of Collision,Relative Projectile Minimum Separation
		11	Minimum Separation,Chasing in Square,Triangle,Hexagon,Chasing Cat and Mouse
		12	Rain Problem,River Boat,Minimum Time
		13	Minimum Time and Minimum Drift for River Boat Problems
5	Newton`s Law of Motion & Friction	1	Type of Force,Normal,Tension,Friction,Newton""s 3rd Law
		2	Newton""s 2nd Law,Constrained of String
		3	At Wood Machine,Newton""s 3rd Law & 2nd Law Application
		4	String Constrain
		5	Problem Based on String Constraints-: Rod Constraints,Wedge Constraint
		6	Spring
		7	Cutting of Spring and String
		8	Constrained with Relation Motion, Pseudo Force
		9	Specific Problem on Application of NLM and Pseudo Force

		10	Pseudo Force, Friction
		11	Friction Specific Problem Practice
		12	Two Block System
		13	Discussion
6	Circular Motion	1	Kinematics of Circular Motion,Uniform Circular Motion
		2	Conical Pendulum,Banking of Road
		3	Non-Uniform Circular Motion
		4	Relative Angular Velocity,Radius of Curvature
		5	Centrifugal Force
		6	Discussion
7	Work ,power and Energy	1	Work Defination,Work Done by Normal Force,Tension Force
		2	Work Done by Variable Force,Work Done by Normal,Tension,Gravity
		3	Work Done By Spring Force, Work Energy Theorm For One Particle
		4	Work Energy Theorem for System
		5	Conservative Force Mathmatical Interpretation, What Is Cenral Force And Its Conservative Nature
		6	Potential Energy Concept, Relation Between Conservation Force And PE
		7	Stability With Potential Energy and Position Graph,Types Of Equilibrium,Power
		8	Practice Problems on Work Energy Theorem
		9	Problem Based on Spring
		10	String- Mass, Moving in Vertical Circle, Minimum Velocity at Lower Most Point, Top Most Point
		11	Circular Motion- Different Cases When Particle Leaves The Circular Path
		12	Special Practice Problems
		13	Discussion
8	Center of Mass & Collision	1	COM Calculation -Point Object /Symmetric Object,Some Part Removed
		2	Variable Distributed Mass,Centre of Mass of Part of Ring
		3	Ring,Disc,Cone,Conical Shell,Spherical Shell,Hemisphere,Hemispherical Shell
		4	System Analysis For Force and Momentum,Conservation of COM
		5	Based Problem, Shifting of Component of System
		6	Conservation of Momentum, Momentum and Energy Equation
		7	Some Examples on Interaction of 2 Object,Muzz Level-Gun Bullet,Canon Canon Shell
		8	Motion of COM
		9	Impulse Force,Impulse,Impulse Momentum Theorem
		10	Some Special Problems on Impulse Momentum Theorem
		11	Collision Types of Collision,Newton""s Impact Equation ,Head on Collision Examples
		12	Extra Problems Practice (Motion of COM)
		13	Head on Collision and Special Cases,Spring Mass System Analysis
		14	Special Case-2 and Oblique Collision,Jumping of Ball
		15	Variable Mass System

		16	Discussion
9	Rotational Motion	1	Rigid Body,Axis of Rotation,Types of Rotation,Centre of Rotation
		2	Momentum of Inertia
		3	Moment of Inertia,Parallel Axis Theorem,Perpendicular Axis Theorem
		4	Moment of Qnertial ,Cavity Problem MOI (Qualitative Analysis)
		5	Torque,Equilibrium Problem
		6	Fixed Axis of Rotation,Equilibrium Basic Problem(Rod Problem),Pully Problem
		7	Composite Pulley,Angular Momentum (About Fixed Axis)
		8	Combined Translational and Rotational Motion,Rolling
		9	CTRM (Problem Based on Conservation of Energy and Angular Momentum)
		10	Angular Impulse ,Free Collision,Discussion of Homework -7
		11	Toppling
		12	Discussion
10	Elasticity	1	Young""s Modulus,Modulus of Rigidity,Bulk Modulus,Energy Density,Elongation of Rod Due to Own Weight
		2	Stress strain Curve, Elastic Fatigue, Hysteresis, Poisson""s Ratio
		3	Discussion
11	Calorimetry	1	Heat Energy ,Mechanical Equivalent of Heat,Specific Heat,Thermal Capacity , Latent Heat
		2	Molar Heat Capacity,Boiling Point,Freezing Point Etc.,Phase Diagram (Triple Point)
		3	Discussion
12	Thermal expansion	1	Temp, Thermal Equilibrium, Temp Scale, Thermal Expansion
		2	Pendulum Clock, Thermal Stress, Meter Scale, Freezing of Lake
		3	Bimetallic Strip, Constant Volume Gas Thermometer,Triple Point
		4	Discussion
13	Heat Transfer	1	Heat Transfer Basic Idea, Conduction
		2	Series Combination of Thermal Conductivity, Parallel Combination of Thermal Conductivity, Ice Formation
		3	Prevost Theory Emissive Poweer
		4	Emissivity, Stefen""s Law, Rate Law of Cooling
		5	Radiation, Stefan""""""s Law, Newton""""""s Law of Cooling
		6	Discussion
14	Kinetic Theory of Gases & Thermodynamics	1	Ktg
		2	Boyle""s Law , Charle""s Law, Gay lussac""s law,Dalton’s Law of Partial Pressure, K.E of Gas, Law of Equipartition Energy
		3	Mean Free Path
		4	Introduction-System, Surrounding, Thermodynamics State, First Law of Thermodynamics
		5	Flot,Isochoric Process
		6	Isobaric Process, Isochoric Process

		7	Adiabatic Reversible Process
		8	Free Expansion, Discussion of Homework-03
		9	Second Law of Thermodynamics, Entropy Concept of Entropy, Carnot Cycle, Refrigeration
		10	Discussion
15	Fluid Mechanics	1	"Density, Relative Density, Specific Gravity, Pressure, Force Due to Pressure, Variation of Pressure, Force on Surface Inside Liquid"
		2	Variation of Pressure in Accelerated Container, Mercury Barometer
		3	Pascal's Law, Archimede's
		4	Fluid Dynamics, Continuity Equation, Bernoulli""s Equation
		5	Velocity of Efflux in Multiple Liquid, Force Due to Water Jet, Rotating Fluid
		6	Discussion of Homework-01 and 02, Rate of Fall of Height in Container Due to Leakage
		7	"Surface Tension- (1)Cohesive Adhesive (2)Contact Angle (3)Surface Energy (4)Atomization (5)Excess Pressure inside Curved Surface"
		8	Capillary Tube, Viscosity,Viscosity Stokes Law Reynolds Number Poiseuille""s Equation
		9	Discussion
16	Simple Harmonic Motion (SHM)	1	Oscillation Vibration Periodic Motion Equation Of SHM Phase v And X A And X Relation
		2	"SHM with (Spring+Mass), SHM when Spring is not Attached with Block, 2-SHM Simultaneously"
		3	"Graphs with Time & Conversion of Graphs, Combination of Springs"
		4	"Energy , Spring with Two Blocks Long Pendulum,Tunnel in Earth SHM"
		5	Damped Harmonic Oscillation, Forced Harmonic Oscillation
		6	Discussion
17	String Wave and Sound wave	1	Types of Waves, Equation of Wave, Graphical Representation
		2	"Graphical Relation Between Displacement
		3	Velocity and Acceleration of particle, Relation Between V,A,Y (Quantitative Approach)
		4	Velocity of Waves in String,Heavy String
		5	"Energy, KE,PE, Energy Density, Power, Intensity"
		6	Power, Interference, Reflection & Transmission
		7	Equation of Reflected wave and Transmitted Wave,Standing Wave
		8	Resonance Column Experimental Beats
		9	Quincke's Tube, Sonometer,Kundt's Tube, Doppler Effect, Echo
		10	Discussion
		11	Discussion

Physics 11th Problem Solving		
S.No.	**Chapter Name**	**No. of Lectures**
1	Basic Maths and Error Analysis	2
2	Unit and Dimension	2
3	Vectors	2
4	Kinematics	2
5	Newton`s Law of Motion & Friction	3
6	Circular Motion	2
7	Work ,power and Energy	2
8	Center of Mass & Collision	2
9	Rotational Motion	2
10	Elasticity	2
11	Calorimetry	2
12	Thermal expansion	2
13	Heat Transfer	2
14	Kinetic Theory of Gases & Thermodynamics	2
15	Fluid Mechanics	2
16	Simple Harmonic Motion (SHM)	2
17	String Wave and Sound wave	2
	Total	**35**

JEE Super Saver Course - 10th to 11th Moving
Physical Chemistry - Jitendra Hirwani (JH) Sir

Foundation			
S.No.	**Chapter Name**	**Lecture No.**	**Lecture Name**
1	Foundation lectures	1	Matter & classification
		2	Elements,compounds,atoms & molecules
		3	Atomic mass,Relative atomic mass,Molar mass,Molecular mass,Formula Unit mass
		4	Mole concept-calculation of moles,calculation of number of particles(atoms,molecules,ions,electrons,protons,neutrons).
		5	Isotope,isobar,isotones,isodiaphers,isoester
		6	Oxidation number & its calculation
		7	Basic balancing of reactions
		8	Naming of anions
		9	Naming of acids
		10	Structure drawing of acids

		11	Oxidation and reduction
		12	Reducing agent & Oxidising agent
		13	Ideal gas equation & using ideal gas equation
		14	Vapour pressure ,boiling point

Physical Chemistry 11th			
S.No.	**Chapter Name**	**Lecture No.**	**Lecture Name**
1	Mole Concept (9 Lecture)	1	Introduction to mole (Basics)
		2	Mole calculation
		3	Vapour Density/ Avg atomic mass/Avg molecular mass
		4	percentage compostion,Laws of chemical combination
		5	Percentage Purity, mixture
		6	Prallel/sequential Degree of dissociation
		7	Empirical and molecular formula
		8	Stoichiometry and stoichiometric calculation, concept of limiting reagent
		9	POAC, Estimation of elements
2	Concentration (4 Lecture)	10	Introduction, % w/w ; %w/v ; % v/v, gm/lit ; ppm
		11	Molarity, molality, mole fraction
		12	Conversion of one concentration term to another
		13	Volume strength of H_2O_2, % labelling of Oleum
3	Eudiometry (2 Lecture)	14	Introduction,Eudiometry tube & Various solved example
		15	Eudiometry and its application
4	Redox (8 Lecture)	16	Introduction, Oxidation number
		17+18	Balancing of redox reaction
		19	Law of chemical equivalence
		20	n-factor calculation
		21+22	Titration, Types of Titration
		23	Hardness of water
5	Gaseous State (Ideal Gas) (10 Lecture)	24	Difference between solid / liq. / gas, Barometer, Manometer
		25	Boyle's law, Charle's law, Pressure law & Avogadro's law
		26	Ideal gas equation
		27+28	Dalton's law, Amagat's law of partial volume
		29	Graham's Law
		30	Kinetic theory of gases
		31+32	Maxwell distribution of molecular speed
		33	Collision theory
6	Real Gas (4 Lecture)	34	Introduction, Introduction of Vander Waal's equation, Derivation of Vander Waal's equation
		35	Compressibility, Boyle's temperature
		36+37	Liquifaction (Tc, Pc, Vc)
7	Atomic Structure (10 Lecture)	38	Introduction, Discharge Tube Experiment
		39	Rutherford experiment
		40+41	Planck's quantum theory, Electromagnetic wave, Photoelectric Effect
		42	Spectrum
		43	Bohr Model
		44	Spectral Line

		45	Various solved example
		46	De-Broglie Hypothesis, Heisenberg uncertainity principle
		47	Schrodinger equation
8	Chemical Equilibrium (6 Lecture)	48	Introduction, Introduction to equilibrium, Law of mass action
		49+50	Various types of equilibrium constant, Application of equilibrium
		51	Lechatelier principle
		52	Various solved example (Parallel / Sequential)
		53	Phase diagram of H_2O
9	Ionic Equilibrium (12 Lecture)	54	Classification, Arrhenius theory of dissociation, Dissociation of H2O, pH
		55	Calculation of pH of solution containing acid or base
		56+57	Calculation of pH of solution containing polytropic acid/base & mixture of acid/base
		58	Salt hydrolysis, Amphiprotic salt
		59	Buffer solution, Change in pH of Buffer, Buffer index
		60+61	Indicators, Double indicator acid base titration
		62	Solubility product
		63+64	Effect of complex formation on solubility, Effect of hydrolysis on solubility
		65	Precipitation
10	Thermodynamics (12 Lecture)	66	Introduction, Basic definition, Types of system, State function / path function, Extensive & intensive properties
		67	Reversible & Irreversible process
		68	Work, Heat & Internal Energy, First law of thermodynamics
		69	Enthalpy, Isothermal process, Isochoric process, Isobaric process
		70	Adiabatic process
		71	Comparison between isothermal & adiabatic process, Polytropic process
		72	Carnot cycle, Second law of P.D.
		73	Entropy, Physical significance of entropy
		74	Calculation of entropy, Entropy change for phase transformation, Entropy change for chemical reaction
		75	Third law of thermodynamics, Residual Entropy
		76	Gibbs free energy, Calculation of change in 'G'
		77	Gibb's free energy & non-PV work, Concept of equilibrium
11	Thermochemistry (5 Lecture)	78	Introduction, Exothermic & Endothermic reaction
		79	$\Delta H = \Delta U + \Delta n.RT$, Kirchoff's Equation, Enthalpy of reaction, factors affecting ΔH
		80	Enthalpy of combustion, Formulation, Bond Enthalpy, Resonance energy
		81	Enthalpy of sublimation, Enthalpy of atomisation, Ionisation enthalpy, Electron gain enthalpy, Lattice enthalpy, Born-Haber Cycle
		82	Enthalpy of hydration, Enthalpy of solution, Enthalpy of dilution, Enthalpy of Neutralisation

Physical Chemistry 11th Problem Solving Schedule			
S. No.	**Chapter Name**	**Lecture No.**	**Subtopic**
1	Mole Concept	1	Revision summary, DPP and Sheet Disussion

1	Mole Concept	2	Revision summary, DPP and Sheet Disussion
2	Concentration	3	Revision summary, DPP and Sheet Disussion
3	Eudiometry	4	Revision summary, DPP and Sheet Disussion
4	Redox	5	Revision summary, DPP and Sheet Disussion
		6	Revision summary, DPP and Sheet Disussion
5	Gaseous State	7	Revision summary, DPP and Sheet Disussion
6	Real Gas	8	Revision summary, DPP and Sheet Disussion
7	Atomic Structure	9	Revision summary, DPP and Sheet Disussion
		10	Revision summary, DPP and Sheet Disussion
8	Chemical Equilibrium	11	Revision summary, DPP and Sheet Disussion
		12	Revision summary, DPP and Sheet Disussion
9	Ionic Equilibrium	13	Revision summary, DPP and Sheet Disussion
		14	Revision summary, DPP and Sheet Disussion
10	Thermodynamics	15	Revision summary, DPP and Sheet Disussion
		16	Revision summary, DPP and Sheet Disussion
11	Thermochemistry	17	Revision summary, DPP and Sheet Disussion
		18	Revision summary, DPP and Sheet Disussion

JEE Super Saver Course - 10th to 11th Moving
Inorganic Chemistry - Prince Singh (PS) Sir

Foundation			
S.No.	**Chapter Name**	**Lecture Level**	**Lecture Name**
1	Foundation Lectures	1	Writing electronic configuration & rembering configurations in periodic table
		2	Classification of elements,valency,covalency
		3	Making formulas of compounds
		4	Quantum Numbers and Shape of Orbitals

Inorganic Chemistry 11th			
S.No.	**Chapter Name**	**Lecture No.**	**Lecture Name**
1	Periodic Table	1	History of Periodic Table and Mendeleev's Periodic Table
		2	Introduction to Periodic Table, Screening Effect and Shielding Effect, Calculation of Effective Nuclear Charge
		3	Atomic Radius, Variation of Atomic Radius, Variation of Atomic Size in D-Block, size in Isoelectronic Series
		4	"Ionization Energy,Variation of Ionization Energy, Successive Ionization Energies,Electron Gain Enthalpy and Electron Affinity"
		5	Electron Gain Enthalpy and its Variation, Electron Gain Enthalpy for Halogens and Oxygen Family, Electronegativity
		6	Application of Electronegativity, Acidic and Basic Character of Oxides, Hydration Energy and its Application
		7	Introduction,Types of Chemical Bonds,Lewis Octet Rule,Lewis Acids and Bases ,Types of Lewis Acids

		8	Comparison of Lewis Acid Character,Lewis Base and Strength of Lewis Bases
		9	Limitations of Lewis Octet Theory,Valence Bond Theory,Type and Shape of Orbitals
		10	Overlapping, Types of Overlapping and Comparison of Bond Strength
		11	Hybridisation,Rules For Hybridisation,Types of Hybridisation
		12	Determination of Hybridization,VSEPRT,Determination of Final Shape using VSEPRT
		13	Illustrations on VSEPRT
		14	Flash Note, Pπ-Pπ & pπ-dπ Bonds and Calculation, Equipment and Non-Equivalent Hybridized Orbitals
		15	Hybridisation in Reactive Intermediates, Bond Order
		16	Bent Rule and its Application,Bond Length and Comparision of Bond Length"
2	Chemical Bonding	17	Bond Angle and Comparison of Bond Angle,Bond Energy Hybridisation in Solid State,Dipole Moment
		18	Dipole Moment in Isomers and Comparison Calculation of % ionic Characters,Back-bonding
		19	Bridge Bonding,Molecular Orbital Theory,LCAO Method
		20	"Molecular Orbital Theory,Energy Level Diagrams Molecular, Filling of Electrons in Orbitals, Bond Order,Magnetic Character and Stability"
		21	MOT for Heteroatomic Species
		22	Intermolecular Forces,Vander waal Forces,Hydrogen Bonding
		23	"Strength and Extent of Hydrogen Bonding, Symmetrical and Unsymmetrical H-bond, Intermolecular and Intramolecular Hydrogen Bonding,Applications of H-bonding"
		24	"Density of Water,Structure of Boric Acid and HF,Acidic Strength of Maleic and Fumaric Acid, Naming and Structure Drawing of Oxyacids"
		25	Ionic Bond,Polarisation and Fajan""s Rule, Applications of Polarisation,Solubility and Solubility Order
3	s- block	26	Properties of Alkali and Alkaline Earth Metals, Diagonal Relationship
		27	Important Compounds of S-Block Metals and Their Uses
		28	Group 1 Elements :- Alkali Metals
		29	Group 2 Elements :- Alkaline Earth Metals
		30	Anomalous Behaviour of Lithium
4	p-Block	31	Inroduction, D-block and Lanthanide Contraction Inert Pair Effect,General Properties of 13th Group
		32	"Boron and its Isolation,Properties of Boron Borax and its Properties,Boric Acid and its Properties"
		33	"Diborane and its Properties,Boron Halides Aluminium,its Extraction and Properties"
		34	"14th Group Elements and Properties Allotropes of Carbon (Diamond,Graphite and Fullerene) Carbon Monoxide and Properties"
		35	"CARBON DI OXIDE AND CARBON SUBOXIDE,DIFFERENT TYPES OF CARBIDES, CARBONATES AND BICARBONATES,SI AND SILICON OXIDES"

		36	Silicates and their Classification,Silicones and their Structure
		37	Zeolites and Alums,Questions based on 13th and 14th Group Members
5	Hydrogen	38	Properties of Hydrogen, Hydrides, Water and hydrogen Periods
		39	Properties of H2O2, Hardness of Water and its Removal

Inorganic Chemistry 11th Problem Solving Schedule			
S. No.	**Topic**	**Lecture No.**	**Subtopic**
1	Periodic Table	1	Revision summary, DPP and Sheet Disussion
		2	Revision summary, DPP and Sheet Disussion
2	Chemical Bonding	3	Revision summary, DPP and Sheet Disussion
		4	Revision summary, DPP and Sheet Disussion
3	s- block	5	Revision summary, DPP and Sheet Disussion
		6	Revision summary, DPP and Sheet Disussion
4	p- block	7	Revision summary, DPP and Sheet Disussion
		8	Revision summary, DPP and Sheet Disussion
5	Hydrogen	9	Revision summary, DPP and Sheet Disussion

JEE Super Saver Course - 10th to 11th Moving
Organic Chemistry - Navneet Jethwani (NJ) Sir

Foundation			
S.No.	**Chapter Name**	**Lecture No.**	**Subtopic**
1	Foundation Of Organic Chemistry	1	Electronic Configuration of Elements
		2	Chemical Bonding-Octet Rule and Lewis Dot Structure
		3	Drawbacks of Lewis Dot Structure/Valency Bond Theory
		4	Hybridisation/VSEPR theory/Shapes of molecules
		5	Chemical Bonding of Carbon in Organic Compounds

Organic Chemistry 11th			
S.No.	**Chapter Name**	**Lecture No.**	**Subtopic**
		1	Classification of Organic Compounds, Concept of bonding and hybridisation of carbon
		2	Classification of carbon and Hydrogen atoms, Bond Line notations
		3	Identification of Functional Groups, Homologous series, Identification of cyclo, bicyclo, and spiro compounds
		4	Degree of Unsturation and examples, Nomenclature of Hydrocarbons(Alkanes)

1	Classification and Nomenclature of Organic Compounds	5	Nomenclature Of Cyclo, Bicyclo, Spiro, alkenes and alkynes
		6	Nomenclature Of compounds containing Functional Groups (carboxylic acid, cyanide, aldehyde, amide, acid halide, esters anhydrides etc.)
		7	Nomenclature Of compounds containing Functional Groups (carboxylic acid, cyanide, aldehyde, amide, acid halide, esters anhydrides etc.)
		8	Priority Table of Functional group, Nomenclature of Compounds Containing multiple functional Groups
		9	Nomenclature of Compounds Containing multiple functional Groups, epoxides
		10	Nomenclature of Aromatic Compounds
		11	Common Names of Organic Compounds
2	General Organic Chemistry	12	Electronic Displacement effect classification, Inductive Effect, I effect series
		13	Application of Inductive effect of stability of intermediates, Comparison of Acid strength and base strength
		14	Inductive effect complete, Resonance, Condition for resonance and writing R.S.,
		15	Resonance, Condition for resonance and writing R.S.,
		16	Aromaticity and mesomeric effect
		17	Aromaticity and mesomeric effect
		18	Bond Order and Bond Length, Rotational Energy Barrier
		19	Hyperconjugation, Applications of hyperconjugation, HOH,HOC
		20	Stability of intermediate
		21	Comparison of Acid Strength, SIR effect, Ortho effect
		22	Comparison of Base Strength, SIP effect
		23	Na, NaOH , NaHCO3, NaNH2, and CH3MgBR reactions on Acidic Compounds, Spontaenity of Reactions
3	Structural isomerism	24	Structural isomerism (including tautomerism).
		25	
		26	
4	Geometrical isomerism	27	Geometrical isomerism
		28	
		29	
5	Conformational isomerism	30	Conformation of Ethane,propane, butane and other hydrocarbons
		31	Conformation of Cyclic Compounds, Hydrogen Bonding and Gauche Effect factors
		32	Conformation of Cyclohexane including G.I.
6	Optical isomerism	33	Symmetry elements (POS, COS, AOS, AAOS)
		34	Symmetry elements (POS, COS, AOS, AAOS)
		35	(i) Optical acitivity, PPL, angle of rotation (ii) d & l , numerical on specific angle of rotation
		36	Single Chiral and Multiple Chiral Compounds, relationship between molecules, relational between molecules, R.S. configuration
		37	Single Chiral and Multiple Chiral Compounds, relationship between molecules, relational between molecules, R.S. configuration

		38	Conversion of Projections, Enantiomer & diastreomers, meso compounds,
		39	Calculating number of optical isomers and stereoisomers, D-L configuration.

Organic Chemistry 11th Problem Solving Schedule			
S.No.	**Topic**	**Lecture No.**	**Subtopic**
1	Classification and Nomenclature of Organic Compounds	1	Revision summary, DPP and Sheet Disussion
		2	Revision summary, DPP and Sheet Disussion
		3	Revision summary, DPP and Sheet Disussion
2	General Organic Chemistry	4	Revision summary, DPP and Sheet Disussion
		5	Revision summary, DPP and Sheet Disussion
		6	Revision summary, DPP and Sheet Disussion
		7	Revision summary, DPP and Sheet Disussion
3	Isomerism	8	Revision summary, DPP and Sheet Disussion
		9	Revision summary, DPP and Sheet Disussion
		10	Revision summary, DPP and Sheet Disussion
		11	Revision summary, DPP and Sheet Disussion

JEE Super Saver Course - 10th to 11th Moving
Mathematics - Manoj Sharma (MS) Sir

Foundation		
S.No.	**Chapter Name**	**No. of Lectures**
1	Number System & Introduction of Complex Number	3
2	Divisibility Rule	2
3	Factorization, Some Important Formula and their Applications	3
4	Ratio - Proportion, Componendo & Dividendo	3
5	BODMAS	2
6	Linear Inequalities & Concept of Intervals	3
7	Coordinate Geometry	3
8	Geometry	2
9	Trigonometry	2
10	Mensuration	2
11	Modulus Function	2
12	Greatest Integer Function, Fractional Part Function	3
Total		**30**

Mathematics 11th			
S.No.	**Chapter Name**	**Lecture No.**	**Lecture Name**
1	Logarithm	1	Exponential Function and Law of Exponents, Introduction of Logarithm
		2	Illustration Based on Exponential Inequality ,
		3	Defination of Log and First Three Identities of Log
		4	Law of Logarithm and Their Proof
		5	Base Change Formula And Illustration
		6	Illustration Based on Law of Logrithm
		7	Illusration Based on Law of Logarithm and Base Change Formula
		8	Logrithmic Equations
		9	Illustration on Log Equations and Growth of logarithms
		10	Analysis of Group of Log, Questions Based on This and Log Inequality
		11	Characterstic and Mantisa
		12	Illustration Based on Characteristics and Matissa and Antilog
2	Quadratic Equation	1	Introduction Quadratic and Difference Between Identity and Equation
		2	Zero""s,Roots Relation Between Coefficient and Roots of a,b and c and Nature of Roots
		3	Illustration on Nature of Roots and Symmetric Functions of Roots
		4	Forrmation Of Quadratic Equction, Transformation of Roots
		5	Illustration On Symmetric Function Of Roots And Nature Of Roots
		6	Common Roots
		7	Graph of Quadratic Expression
		8	Method of Internal(Rational In Equaling)
		9	Rational in Equlities, Irrational in Equalities and Log in Equalites
		10	Log and Mod in Equalites
		11	Range of Quadratic Expression
		12	Theory & illustration of Equation
3	Trigonometric Ratios & Identities	1	Introduction of angle and its units
		2	Consevation of Angles From One Unit to Other And Formula θ=l/r
		3	Trigonometric Ratio of Right Angle Triangle
		4	Illustration Based on Basic Identites and Introduction Allied Angles
		5	Trigonometric Ratios of Allied Angles
		6	Illustration Based on Allied Angles
		7	Graphs of sinx, cosx, tanx, secx & cosecx
		8	Graph of Cosecx and Basic Illustration of Solution of Trigonometric Equations
		9	Illustration Based on Basic Trigonometric Equation and Formula o sin(A+B)

		10	Formula of Compound Angles and Multiple, Submultiple Angles
		11	Transformation Formula of Sum and Product
		12	Illustrations Based on Various Formuale
		13	Illustration Based Upon All Formuale
		14	Illustration Based on Formula Introduction of Some Trigonometric Series
		15	Illustrations Based on series, conditional identity, Range of Trig Expression
4	Trigonometric Equations	1	Types of Solutious and General Solution of Standard Equation
		2	Basic Illustration
		3	Illustration Based on Factorisation
		4	Illustration based upon Different Methods of Factorization and Formula
		5	Illustration given in H.W in Previous Class and Solution of Equation of the form asinx+bcosx=c
		6	Illustration Based upon asinx+bcosx=c and Boundness of Functions
		7	Illustration Based upon Inequalities
		8	Illustration Based Upon Range and Graph
		9	Illustration Based upon Inequality and Simultaneous Equations of Two Variables
5	Sequence & Progressions	1	Introduction of Sequence and Series and A.P, Formation of A.P and General term of A.P
		2	Theory of Sum of First n Terms of A.P
		3	Illustration Based on Sum of A.P
		4	Properties of A.P
		5	Illustration Based upon A.M and Properties of A.P
		6	Illustration Based upon Properties of A.P and Some Special Sequence Based upon A.P
		7	Some special sequences and Theory of G.P
		8	Illustration based upon General Term and Sum of G.P
		9	Propertiese of GP and Geometric mean
		10	Harmonaic Progression and AGP
		11	Illustration Based upon AGP and Theory of Rotation Between AM, GM and HM
		12	Illustration Based Upon Range and Theory of Special Sequence
		13	Illustration Based upon Special Sequence and Method of Difference
6	Solution of Triangle	1	Sine and Cosine Rules and Some Illustrations on Sine Rule
		2	Illustrations Based upon Sine, Cosine Rule and Projection Formula
		3	Derivation of Formula, Area of triangle, Tangent Rule and Half Angle Formula
		4	Formula of R, r1,r1 r2 and r3 with Proof
		5	Distance between Various Points and Sides of Triangle and Length of Angle Bisector and Medians
		6	Pedal Triangle and Ambiguous Case, M-N Theorem and Polygons
		1	Basics of Determinant and Value of Determinant
		2	Properties of Determinant

7	Determinant	3	Illustration Based upon Properties of Determinants
		4	Junction Rule , Multiplication of Determinants
		5	Theory of solution of system of Equation
8	Straight Line	1	Introduction of Coordinate System (Cartesian and Polar) and Distance Formula
		2	Illustrations Based Upon ,Types of Coordinate System and Distance Formula
		3	Section Formula with Basic Illustrations
		4	Illustrations Based upon Section Formula and Harmonic Conjugate Points
		5	Special Points of a Triangle
		6	Illustration Based Upon SP. Points Of Triangle
		7	Area of Triangle and Polygon and Condition of Collinearity of 3 points
		8	Illustration Based upon Area and Collinearity Introduction and Definition of Line and its Slope
		9	Angle Between Line and Various Forms of Equation of Lines
		10	Equation of Line in Various Cases
		11	Illustrations Based upon Equation of Lines
		12	Equation of line Passing Through a Fixed Point and Inclined at a Given Angle or Equal With Given Lines
		13	Distance Between Parallel Lines, Area of Parallelogram and Illustraion Based Upon Reflection
		14	Position of a Point w.r.t. Line and Relative Position of Two Points w.r.t a Line
		15	illustration Based upon Parametric Form of Equation of Line and Distance of a point from given Line
		16	Family of line and image of a point about a line
		17	Illustrations Based Upon family of Line and Concurrency of 3 Lines
		18	Locus
		19	Illustration Based Upon Locus and Angle Bisectors of Lines
		20	Illustration Based Upon Angle Bisectors and Shifting of Origin
		21	Illustration Based Upon Pair of Lines Passing Through Origin, General Case of Pair of Lines and Concept of Homogenization
		22	Illustration Based Upon General Case Pair of Lines and Homogenization
9	Circle	1	Basics of Circle, Centre, Radius and Various form of Equation of Circle
		2	Various Forms of Equation Circle,Position of Point and Line with Respect Circle,x-y Intercepts Circle
		3	Illustration Based upon Equation of Circle
		4	Line w.r.t Circle and Tangent of Given Slope and Tangent from an External Point to Circle
		5	Illustrations Based Upon tangents from External Points
		6	Illustrations Based Upon Angle between Tangent and Length of Tangents and Director Circle
		7	Illustration Based upon Midpoint form of Chord
		8	Equation Chord of Contact, Pair of Tangents Power of Point and Relative Position of Two Circles

		9	Illustrations Based On Chord of Contact Power of Point ,Relative Position of two Circles and Common Tangents
		10	Family of Circles,Radical Axis ,Radical Centre,Radical Circle and Common Chord of two Circles
		11	Illustration Based upon Family Circles
		12	Ilustration Based upon Common Chord and Padical Axis, Angle between Two Circles Condition of Orthogonality, Parametric Equation and Pole And Polar
		13	Illustration based upon Orthogonality Pole-Polar
		14	Parametric Equation of Circle
10	Binomial Theorem	1	Factorial and ncr Notation and Properties ncr
		2	Binomial Theorem it""s Properties and General Term of Expansion
		3	Illustration Based upon General Term of Expansion
		4	Illustration Based on Rational Terms and Other Profiles of General Term
		5	Middle Terms, Sum of Coefficient and Sum of Combinatorial Coefficient and Theory of Numerically Greatest Term
		6	Illustrations Based on Numbering Greatest Terms and Application of Binomial Theorem
		7	Illustration Based upon Application of Binomial Theorem
		8	Summation of Series
		9	Sum of Special Series Containing ,Binomial Coefficients
		10	Binomial for any Index and Multinomial Theorem
11	Permutation & Combination	1	Fundamental Principle of Counting
		2	Illustrations Based upon Word Formation
		3	Digit Problems (Number Formations)
		4	Dictionary problems and theory of cyclic permutation
		5	illustration based upon cyclic permutation and theory of combination
		6	Illustration Based Upon Combination
		7	Geometrical Problems
		8	Permutation of Identical Objects
		9	illustration based upon arrangement of Identical Things and Grid Problem
		10	Division into Groups
		11	Illustration Based upon Formation of Groups
		12	Distribution of Objects and Selection of Objects
		13	Distribution of alike objects and division problems
		14	Illustrations Based upon Distribution of Identical Objects
		15	Dearrangement Theorem and it""s Illustration
12	Matrices	1	Introduction of Matrix and Types of Matrices
		2	Matrix Algebra
		3	Properties of Matrix Multiplication, Transpose of a Matrix and its Properties
		4	Illustrations Based upon Various Types of matrices, Trace of Matrix and Multiplication of Matrices
		5	Illustrations Based upon Various Types of matrices, Trace of Matrix and Multiplication of Matrices
		6	Adition of matrix and its properties and inverse of matrix
		7	Properties of Inverse of a matrix and Illustration Based upon this Solution of System of Equation using matrices

Mathematics 11th Problem Solving		
S. No.	**Chapter Name**	**No.of Lectures**
1	Logarithm	2
2	Quadratic Equation	3
3	Trigonometric Ratios & Identities	3
4	Trigonometric Equations	3
5	Sequence & Progressions	3
6	Solution of Triangle	4
7	Determinant	3
8	Straight Line	5
9	Circle	3
10	Binomial Theorem	3
11	Permutation & Combination	2
12	Matrices	2
Total		**36**