----------PHYSICS 360 Degree Analysis -Rankers ----------JEE MAIN 2023 JANUARY ATTEMPT----------												
CHAPTER NAME	24 JANUARY S-01	24 JANUARY S-02	25 JANUARY S-01	25 JANUARY S-02	29 JANUARY S-01	29 JANUARY S-02	30 JANUARY S-01	30 JANUARY S-02	31 JANUARY S-01	31 JANUARY S-02	1 February Shift-01	1 February s-02
UNIT AND MEASUREMENT	1.Diemnsional Formula	1.Dimensional Analysis	1.Unit	1.Dimensional Formula	1.Dimensional Formula	1.Dimensional Analysis	1.UNIT 2.ERROR	1.UNIT	1. Dimensional analysis	1.Dimensional formula	1.Dimensional Analysis	1.Dimensional Analysis
KINEMATICS	1. Projectile Motion 2. Vectors		1.Average Speed 2. Vector(Cross Product)	1.Definition of Velocity	1.Kinetic Energy in Projectile		1.x-t and v-t Graphs 2. Average Speed	1.Average Speed	1. projectile motion , Time of flight 2. River Problem 3. Max Height in projectile motion	1. Displacement	1. Projectile motion 2. Average Speed	1. Projectile motion 2. Uniform Accelaration
LAWS OF MOTION	1. Pseudo Force 2. Newton's law, Wedge blockSystem 3. Newton's 2nd Law	1.Cicular Motion	1.Centrifugal Force	1.Kinetic Friction 2. Projectile concept of equal range	1. Kinetic Friction 2. Motion in Vehicle on horizontal circular turn 3. Average accelaration in collision	1. Kinetic Friction 2. Newton's Law 3. Circular Motion 4. Circular Motion	1.Relation b/w force and Momentum	1.Equillibrium Forces 2. Newton's 3rd Law recoil Velocity 3.Circular Motion	1. Newton's 2nd law 2. Defination of average force	1. Circular motion in horizontal plane 2. Friction	1.Laws of Motion problem based on Kinetic Friction	1. Limiting Friction 2. Force and Impusle
WORK ENERGY AND POWER		1.Power Delivered by Constant Force	1.Work Done by Variable Force	1.Head on Elastic Collision	1. Kinetic Energy in Rotation 2. Mechanical Energy conservation	1.Work Done by Constant Force	1.Collision 2.Collision	1.Power	1.Work done, kinetic energy	1. Collision	1.Work done by constant force	1.Work done by variable force
ROTATIONAL MOTION	1.Radius of Gyration	1.Moment of Enertia	1.Rotational Equillibrium 2.Moment of Inertia	1.Moment of Inertia	1. Kinetic Energy in rotation	1.Angular Momentum	1.Roational Kinetic Energy	1.Kinetic Energy in Rolling	1. Rolling	1. Moment of inertia	1.Pure Rolling	1.Moment of Inertia, perpendicular axis theroem
GRAVITATION	1.Variation in accelaration due to gravity with respect to height	1. Kepler's law of Planatory Motion 2. Variation in accelaration due to gravity with respect to height and depth	1.Variation in acceleration due to gravity w.r.t height and depth 2.SHM in tunnel inside Earth	1.Gravitational Potential Energy 2. Kepler's Law of Planatory Motion	1.Circular Motion under mutual gravitation interaction	1.Kepler's Law	1.Relation b/w gravitational field and potential	1.Gravitation Energy Conservation	1. Variation in acceleration due to gravity w.r.t height and depth	1.Variation of accelaratuion due to gravity with height	1. Variation of Gravity with Respect to Depth and Height 2. Rocket Problem / Escape velocity	1.Escape velocity of accelaration due to gravity
PROPERTIES OF SOLIDS AND LIQUIDS	1.Young's Modulus of elasticity	1. Elasticity 2. Viscocity and Stokes Law	1.Young's Modulus of Elasticity	1.Surface Energy	1.Surface Tension / Energy	1. Bernaulli's Principal 2. Viscocity	1.Poissions Ratio 2. Capilary Action	1.Modulus of Elasticity	1. Surface energy	1. Yong's Modulus 2. Young's Modulus	1. Surface tension / Surface Energy 2. Bulk moduluds / Compressibility	1. Young's Modulus 2. Velocity of Efflux
THERMODYNAMICS	1. Calorimetry and Thermodynamics 2. Thermal Expansion	1.Isothermal Process	1.Carnot Engine 2. Newton's Law of Cooling	1.Temperature Scale 2. Thermodynamic Process	1. First law of Thermodynamics definition 2. Newton's Law of cooling	1.Calorimetry	1.Thermal Expansion of Gases 2.Isothermal Process	1.Carnot Engine 2. Temperature Scale	1. First law of thermodynamics 2. Thermal stress	1. First law of theermodynamics 2. Caleromitry	1.Adiabatic process	1.Carnot Engine
KINETIC THEORY OF GASES	1.RMS speed	1. Specific Heat 2. Ratio	1.RMS Velocity	1.Law of Equipartition Energy	Variation of Pressure versus temperature in a gas	1.RMS and Average Speed		1.Average Kinetic Energy	1. Adiabatic constant	1.Specific heat	1.Equipartition Energy	Variation of pressure versus temperature
OSCILLATIONS AND WAVES	1. Travelling Wave, Wave Velocity 2. Time period of Spring Block System	1. Time period of Spring Block System	1.Travelling Wave ,Wave Velocity	1.Displacement-Time Relation in SHM 2. Doppler's Effect	1. Sound wave / Doppler's Effect 2. Superposition of SHM	1.S.H.M	1.Energy in S.H.M	1.Angular Frequency of Spring Block System 2. Relation b/w position and velocity in S.H.M	1.Energy in SHM 2. Spring Block System	1. Superposition of Waves	1. Wave velocity of transverse wave in string under tension 2. Energy in S.H.M.	1. Time period of Simple Pendulum 2. Energy in S.H.M.
ELECTROSTATICS	1. Coulomb's Law 2. Electrostatic, Force on Charge in Electric Field	1. Electrostatic Potential 2. Effect of Dielectric in Capacitor	1.Capacitor 2.Force on charge in electric field due to capacitor	1.Equillibrium,null point where net E.F is zero	1. Electric flux / Gauss' Law 2. Equilibrium of Charges aoulomb's law	1. Work done by Electric Field 2. Relatiuon between electric field and Potential	1.Potential and Surface Charge Density 2.Energy Stored in Capcitor	1.Electric Field due to spherical Shell 2.Gauss Law and Flux	1.Potential due to charged spherical shell 2. Defination of flux	1.Electricfield & Potential 2. Combination of capacitor	1. Electric field due to infinite thin sheet 2. Concept of maximum Electri Field on axis	1. Capacitance of conducting sphere 2. Electri field and Gauss law
CURRENT ELECTRICITY	1. Circuit Analysis 2. Resistance of Conductor	1. Variation in resistance due to Streching of wire 2. Growth of current in L-R d.c. circuit	1.Definition of Resitance 2.Equivalent Resistance	1.Variation of Resistance on Stretching Wire	1.Power Dissipated through resistance		1.Definition of Current 2. Circuit Analysis	1.Equivalent Resistance 2.Equivalent Resistance	1.Drift velocity 2. Combination of shell	1. Heating effect of current 2.Circuit analysis	1.Equivallent Resistance	1. Equivallent Resistance 2. Circuit Problem
MAGNETIC EFFECTS OF CURRENT AND MAGNETISM	1. Force between parallel wires 2. Magnetic Field due to current carrying loop	1.Force on Current carrying loop in magnetic field	1.Magnetic Field due to current carrying conductor 2.Magnetic intensity inside solenoid	1.Magnetic Field due to current carrying wire	1. Magnetic field due to correct carrying loop 2. Magnetic field due to current carrying wire	1. Magnetic field due to current carrying loop 2. Work done by magnetic field on Dipole	1.Magnetic Moment 2. Force on Current Carrying Wire	1.Magnetic Field due to current carrying wire 2. Force on Current Carrying Wire	1. Work done by magnetic field on bar magnet 2. Magnetic material	1. Magnetic field due to cicular loop	1. Magnetic Field due to current carrying wire 2. Circular motion of charge in magnetic field	1.Magnetic Feild due to current carrying wire
EMI & AC	1. Faraday's law of eletromagnetic Induction 2. Quality factor in A.C. circuit	1. Magnetic field due to Solenoid 2. EMF induced in rotating rod	1.Resonance in A.C Circuit 2. Resonance in A.C Circuit	1.Motional E.M.F 2.Power Factor	1. Mutual Induction 2. Induced EMF, Faraday's Law	1. A. C. RMS current and resonance 2. Resonance in A. C. Current	1.Power Factor 2.e.m.f Induced in Indicator	1.R.M.S Current in A.C Circuit 2.Induced E.M.F , Faraday's Law	1. lenz law 2. Series LCR Circuit	1. Inductive reactance 2. RLC AC Circuit		
EM WAVES	1.Realation Between 'E' and 'B'	1.Relation between E0 and B0 in EM waves	1.Direction of propogation of E.M Wave	1.Maxwells Equation	1.Propagation and Intensity of E.M. waves	Properties of E.M. waves	1.Radiation Force , Momentum 2.Radiation Force	1.Intensity of E.M Wave	1. Electromagnetic spectrum 2. Relation b/w Refractive indedx , relative permeability, relative permittivity	1.Usage of EM Waves	1.Production of Diffrent E.M Waves	1.Energy Density
OPTICS	1. Polarization, Brewster's law 2. Combination of Lens.	1. Aberration in lens 2. Lens maker's formula	1.Young's Double Slit Experiment 2.Lateral Dispacement During Refraction	1.Reflection through plane mirror 2.Lens Mirror Combination	1. Young's double slit experiment 2. Polarization	1. Optical instrument, Microscope 2. Polarization, Brewster's law	1.Young's Double Slit Experiment	1.Dispersion 2.Young's Double Slit Experiment	1. Polarazation	1. Microscope 2. Young's double slit experiments	1.Wave Optics/Polarization 2. Curved ,Mirror	1.Curved Mirror
DUAL NATURE OF MATTER AND RADIATION	1.Photoelectri Effect	1.De-Broglie Wavelength in matter wave	1.Matter Wave ,Debroglie Wavelength	1.Photo Electric Effect	1.Photoelectric Effect	1.Matter wave, DeBroglie wavelength		1.De-Broglie Wavelength of Electron 2. RadioActivity, Half Life	1.Wave nature of electron davisson germer experiment	1. Photoelectric effect	1.De-Broglie Wavelength	1.Einsteins Equation
ATOMS AND NUCLEI	1. Radioactivity alpha, beta and gamma decay 2. Nuclear Density	1. Hydrogen Spectrum 2. Energy Released in fission	1.Density of Nuclei 2. Transition of Electron in Bohr's Orbit	1.Transition of Electron in Bohr's Orbit 2.Density and Momentum Conservation of Nuclei	1. Radioactivity / Halflife 2. Alpha, Beta and Gamma decay	1.Radioactivity, halflife	1.Speed of and Electron in Bohr's Orbit	1.Nuclear Density	1. Qvalue of nucliar reaction 2. Transistion of electron in different energy level	1.Radius of bohr's orbit 2. Binding energy of H-like ion	1.Binding Energy of Nucleus 2.Bohr's Model	1.Transition of Electron in H-Like Ion 2.Binding Energy per Nucleon

Electronic Devices	**1.Photodiode**	**1.Logic Gate**	**1.Photodiode**	**1.P-Type,N-Type Semiconductor 2.Effect of Di-Electric**	**1.Light Emitting Diode**	**1.Logic Gate**	**1.Logic Gate**	**1.Logic Gate**	**1. Energy band in semi conductor**	**1. Transistor**	**1.Classification on the basis of Band Theory**	**1.Zener Diode**
Communication Systems	**1.Modulation**	**1.Broadcasting Spectrum**	**1.Amplitude Modulation Width**	**1.Diffrent parts of Atmosphere**	**1.Range of antennas**	**1.A.M. wave modulation**	**1.Amplitude Modulation**	**1.Element's of Communication**	**1.Amplitude modulation**	**1. Amplitude modulation**	**1.Broadcasting frequency Spectrum**	**1.Amplitude Modulation**
Experimental Skills		**1.Voltmeter**		**1.Moving coil galvanometer**	**1.Meterbridge**	**1. Potentiometer 2. Meterbridge 3. Vernier Calliperse 4. Potentiometer**		**1.Spectacles 2.Screw Gauge**		**1. Sensitivity of galavanometer**	**1.Potentiometer**	**1.Volt Meter**