# Physics (JEE / NEET)

| Sr. | Topic | SubTopic |
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| 1 | physical world | What is Science of Physics. |
| 2 | | Scope of Excitement of Physics. |
| 3 | | Physics Technology and Society |
| 4 | | Fundamental Forces in Nature. |
| 5 | | Nature of Physical Laws. |
| 6 | Units of Measurements | Physical Quantity |
| 7 | | Units of System of units |
| 8 | | Accuracy, precision of error in measurements |
| 9 | | Common error in measurements |
| 10 | | Significant figures |
| 11 | | Rounding off |
| 12 | | Dimension of physical quantity |
| 13 | | Dimension analysis of its application |
| 14 | Motion in a Straight Line | Distance of Displacement |
| 15 | | Velocity of Acceleration |
| 16 | | Equation for uniformly accelerated motion |
| 17 | | Motion under gravity |
| 18 | | Relative velocity |
| 19 | Motion in plane | Scalar & Vectors |
| 20 | | Addition of vectors |
| 21 | | Subtraction of vectors |
| 22 | | Resolution of vectors |
| 23 | | product of two vectors |
| 24 | | Motion in 2D |
| 25 | | Projectile motion |
| 26 | | UCM & non UCM |
| 27 | Law of motion | Newtons first law of motion |
| 28 | | Newtons second law of motion |
| 29 | | Newtons third law of motion |
| 30 | | Law of conservation of linear momentum |
| 31 | | Impulse |
| 32 | | Equilibrium of a particle |
| 33 | | Frame of reference |
| 34 | | Free body diagram |
| 35 | | Pulley |
| 36 | | Friction |
| 37 | | Circular motion |
| 38 | | Banking of road |
| 39 | Work, Energy & Power | Work |
| 40 | | Conservative of non conservative force. |
| 41 | | Energy |
| 42 | | Work-Energy Theorem |
| 43 | | The Law of conservation of Energy. |
| 44 | | Power |

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| 45 | | Collision. |
| 46 | System of particles & Rotational motion | Centre of mass |
| 47 | | Motion of centre of mass |
| 48 | | Angular velocity of Angular Acceleration |
| 49 | | Moment of Inertia of radius of Gravitation |
| 50 | | Theorems on moment of Inertia |
| 51 | | Torque, Angular momenturm |
| 52 | | Conservation of Angular momentum |
| 53 | | Equilibrium of a Rigid body |
| 54 | | Rolling motion |
| 55 | Moving charges of Magnetism | Magnetic field |
| 56 | | Motion of charged particle in magnetic field. |
| 57 | | Cyclotron |
| 58 | | Magnetic field due to current carrying conductor |
| 59 | | Ampere's circuital law. |
| 60 | | Solenoid of Toroid |
| 61 | | Force on current carrying conductor in a magnetic field. |
| 62 | | Torque on a coil |
| 63 | | Force between two parallel current carrying conductor. |
| 64 | | MCG of its conversion in to Ammeter & Voltmeter. |
| 65 | Magnetism of matter. | Bar magnet. |
| 66 | | Magnetic field. |
| 67 | | Magnetic lines of force. |
| 68 | | Magnetic moment |
| 69 | | Coulomb's law of magnetic force. |
| 70 | | Torque on a magnet in a magnetic field. |
| 71 | | Magnetic field due to a Bar magnet. |
| 72 | | Magnetic potential. |
| 73 | | Earth's Magnetism. |
| 74 | | Magnetic intensity, intensity of magnetization, magnetic susceptibility of permeability |
| 75 | | Dia, para of ferromagnetic substances. |
| 76 | | Hysteresis |
| 77 | | Tangent galvanometer |
| 78 | | Deflection magnetometer |
| 79 | | Vibration magnetometer |
| 80 | Electromagnetic Induction | The Experimental of Faraday & Henry. |
| 81 | | Magnetic flux. |
| 82 | | Lenz's Law. |
| 83 | | Method of Induction E.M.F |
| 84 | | Self induction of mutual Inductance |
| 85 | | Eddy Current |
| 86 | | AC Generator |

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| 87 | | DC Motor. |
| 88 | Alternating Current. | AC & Direct Current. |
| 89 | | Average RMS value. |
| 90 | | Impedance of phase of AC Circuit |
| 91 | | Parallel resonant circuit. |
| 92 | | Q - Factor. |
| 93 | | Power in an AC Circuit. |
| 94 | | LC Oscillation. |
| 95 | | Transformer |
| 96 | . Electromagnetic Wave. | Displacement of Conduction Current. |
| 97 | | Maxwell's modification of Ampere's circuital law. |
| 98 | | Electromagnetic waves |
| 99 | | Electromagnetic spectrum. |
| 100 | . Ray Optics of Optical Instrument. | Reflection of light. |
| 101 | | Reflection from plane surface. |
| 102 | | Reflection of light by Spherical mirror. |
| 103 | | Reflection of light. |
| 104 | | Total internal reflection. |
| 105 | | Reflection of Spherical Surface. |
| 106 | | Len's law. |
| 107 | | Refraction by lens. |
| 108 | | Combination of lenses. |
| 109 | | Refraction through a prism. |
| 110 | | Optical Instruments. |
| 111 | Wave Optics. | Wavefront. |
| 112 | | Huygens wave Theory. |
| 113 | | Reflection & Refraction of plane. |
| 114 | | Interference of light waves & Young's Double slit exp. |
| 115 | | Coherence. |
| 116 | | Interference. |
| 117 | | Diffraction. |
| 118 | | Polarization |
| 119 | | Resolving power of optical instrument. |
| 120 | | Doppler's effect for light waves. |
| 121 | Gravitation | Kepler’s laws of Planetary motion |
| 122 | | Newton's Universal Law of Gravitation |
| 123 | | Acceleration due to Gravity |
| 124 | | Gravitational Field |
| 125 | | Gravitational Potential and Potential Energy |
| 126 | | Satellites, Geo-Stationary And Polar Satellites |
| 127 | | Escape Speed and Weightlessness |
| 128 | | Numericals |
| 129 | Mechanical Properties Of Fluids | Interatomic And Intermolecular Force |
| 130 | | Elasticity |
| 131 | | Stress And Strain |

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| 132 | | Types of stress and strain |
| 133 | | Hookes Law |
| 134 | | Stress -Strain Curve |
| 135 | | Elastic Moduli |
| 136 | | Poisson's Ratio |
| 137 | | Work Done in Stretching A wire |
| 138 | | elastic Potential Energy |
| 139 | | Numericals |
| 140 | | Fluid Pressure |
| 141 | | Pascal’s law |
| 142 | | Atmospheric, Hydrostatic and Gauge Pressure |
| 143 | | Buoyancy And Archemedes Principle |
| 144 | | Flow of Fluids |
| 145 | | Viscosity |
| 146 | | Bernoulli’s Theorem |
| 147 | | Stoke's law |
| 148 | | Velocity of Efflux, Toricell"s Theorem |
| 149 | | Surface Tension, Angle of Contact |
| 150 | | Capillarity ,Excess Pressure Inside Liquid Drop and Bubble |
| 151 | | Numericals |
| 152 | Thermal Properties Of Matter | Temperature, Ideal Gas Equation |
| 153 | | Absolute Temperature and Thermal expansion |
| 154 | | Heat, Specific Heat Capacity |
| 155 | | Thermal Capacity, Latent Heat |
| 156 | | Saturated and Unsaturated Air and Heat transfer |
| 157 | | Steafan's law |
| 158 | | Kirchoff's law and Wien's law |
| 159 | | Newton's law of Cooling |
| 160 | | Numericals |
| 161 | Dual Nature Of Matter and Radiation | Cathode Rays, DE-Broglie Equation |
| 162 | | Emission Of Electron, Photoelectric Effect and Photons |
| 163 | | Photoelectric Cell |
| 164 | | Davisson Germer Experiment |
| 165 | | Einstein's Photoelectric Equation |
| 166 | | Numericals |
| 167 | Atoms | Thomson's Atomic Model |
| 168 | | Alpha-particle Scattering And Rutherford's Nuclear Model Of Atom |
| 169 | | Bohr's Atomic Model |
| 170 | | Energy Levels And the Line Spectra Of Hydrogen Atom |
| 171 | | Numericals |
| 172 | Nuclei | Mass, Size And Composition Of Nucleus |
| 173 | | Mass Energy And Nuclear Binding Energy |

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| 174 | | Nuclear Force And Nuclear Reaction |
| 175 | | Radioactivity |
| 176 | | Radioactive Series |
| 177 | | Numericals |
| 178 | Semiconductors Electronics | Energy Band Theory Of Solids |
| 179 | | Conductors, Insulators and Semiconductors |
| 180 | | P-N Junction Diode |
| 181 | | P-N Junction Diode as a Rectifier |
| 182 | | Transistor |
| 183 | | Transistor as an Amplifier |
| 184 | | Logic Gates |
| 185 | Communication Systems | Communication System |
| 186 | | Propagation Of Electromagnetic Waves In Atmosphere |
| 187 | | Modulation And Its Needs |
| 188 | | Numericals |
| 189 | Thermodynamics | Thermal equilibrium And Zeroth Law of Thermodynamics |
| 190 | | First Law of Thermodynamics |
| 191 | | Specific Heat Capacity |
| 192 | | Thermodynamic Processes |
| 193 | | Heat Engine,Refrigerator |
| 194 | | Heat Pump |
| 195 | | Reversible And Irreversible Process |
| 196 | | Second Law Of Thermodynamics |
| 197 | | Carnot Engine |
| 198 | | Numericals |
| 199 | Kinetic Theory | Behaviour Of Gases |
| 200 | | Kinetic Theory Of an Ideal Gas |
| 201 | | Average, Root-Mean-Square And Most Probable Speed |
| 202 | | Specific Heat Capacity |
| 203 | | Degree of Freedom |
| 204 | | Law of Equipatrition Of Energy |
| 205 | | Mean Free Path |
| 206 | | Numericals |
| 207 | Oscillations | Periodic And Oscillatory Motion |
| 208 | | Simple Harmonic Motion |
| 209 | | Uniform Circular Motion |
| 210 | | System Executing S.H.M., Time Period and Frequency |
| 211 | | Free, Damped, Forced Oscillation and Resonance |
| 212 | | velocity, Acceleration and Displacement Of Particle In S.H.M. |
| 213 | | Energy Of A particle in S.H.M. |
| 214 | | Kinetic And Potential Energy of a particle |
| 215 | | Numericals |

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| 216 | Waves | Wave Motion, Interference Of waves |
| 217 | | Progressive and Stationary Waves |
| 218 | | Waves in String and Organ Pipe |
| 219 | | Interference Of Waves |
| 220 | | Beats, Characteristics of Sound And Reverberation |
| 221 | | Doppler's effect |
| 222 | | Numericals |
| 223 | Electric Charges and Fields | Electric Charge |
| 224 | | Conductors and Insulators |
| 225 | | Methods of Charging |
| 226 | | Superposition Principle for discrete charge distribution |
| 227 | | Continuous charge distribution |
| 228 | | Force for Continuous charge distribution |
| 229 | | Electric Field |
| 230 | | Electric lines of Force |
| 231 | | Calculation of electric field Intensity |
| 232 | | Motion of Charged Particle in an Electric Field |
| 233 | | Electric Dipole, Gauss's Law and its applications |
| 234 | | Numerical |
| 235 | Electrostatic Potential and Capacitance | Electrostatic Potential |
| 236 | | Potential Energy of System of charges |
| 237 | | Equipotential Surface |
| 238 | | Potential due to conductors and electrostatic of conductors |
| 239 | | Capacitors and Capacitance |
| 240 | | Parallel plate, spherical and Cylindrical Capacitors |
| 241 | | Combination of Capacitors |
| 242 | | Energy stored in capacitors |
| 243 | | Charging and Discharging of Capacitors |
| 244 | | Equivalent capacitance in different cases |
| 245 | | Methods of finding equivalent capacitance |
| 246 | | Vande Graff Generator |
| 247 | | Numericals |
| 248 | Current Electricity | Electric Current |
| 249 | | Current density |
| 250 | | Drift velocity |
| 251 | | Ohm's law and electrical resistance |
| 252 | | Grouping of resistances |
| 253 | | Colour Coding of carbon resistance |
| 254 | | Kirchoff's laws |
| 255 | | EMF and Internal resistance of Cell |
| 256 | | Grouping of Cells |
| 257 | | Heating effect of Electric Current |
| 258 | | Wheatstone's Bridge, Meter bridge |

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| 259 | | Potentiometer |
| 260 | | Numericals |