

Chapters	Important Topics
Chapter 1 - WAVES	Transverse and longitudinal waves, Displacement relation in a progressive wave, The speed of a travelling wave, The principle of superposition of waves, Reflection of waves, Beats, Doppler effect, etc.
Chapter 2 - RAY OPTICS AND OPTICAL INSTRUMENTS	Reflection of Light by Spherical Mirrors, Refraction, Total Internal Reflection, Refraction at Spherical Surfaces and by Lenses, Refraction through a Prism, Dispersion by a Prism, Some Natural Phenomena due to Sunlight, Optical Instruments, etc.
Chapter 3 - WAVE OPTICS	Huygens Principle, Refraction and reflection of plane waves using Huygens, Principle, Coherent and Incoherent Addition of Waves, Interference of Light Waves and Young's Experiment, Diffraction, Polarisation, etc.
Chapter 4 - ELECTRIC CHARGES AND FIELDS	Electric Charges, Conductors and Insulators, Charging by Induction, Basic Properties of Electric Charge, Coulomb's Law, Forces between Multiple Charges, Dipole in a Uniform External Field, Continuous Charge Distribution, Gauss's Law, Application of Gauss's Law, etc.
Chapter 5 - ELECTROSTATIC POTENTIAL AND CAPACITANCE	Electrostatic Potential, Potential due to a Point Charge, Potential due to an Electric Dipole, Potential due to a System of Charges, Equipotential Surfaces, Potential Energy of a System of Charges, The Parallel Plate Capacitor, Effect of Dielectric on Capacitance, Combination of Capacitors, Energy Stored in a Capacitor, Van de Graaff Generator, etc. Potential Energy in an External Field, etc.

Chapter 6 - CURRENT ELECTRICITY	Electric Current, Electric Currents in Conductor, Ohm's law, Temperature Dependence of Resistivity, Electrical Energy, Power Combination of Resistors - Series and Parallel Cells, emf, Internal Resistance, Cells in Series and in Parallel, Kirchhoff's Laws, Wheatstone Bridge, Meter Bridge, Potentiometer, etc.
Chapter 7 - MOVING CHARGES AND MAGNETISM	Magnetic Force, Motion in a Magnetic Field, Motion in Combined Electric and Magnetic Fields, Magnetic Field due to a Current, Element, Biot-Savart Law, Magnetic Field on the Axis of a Circular Current Loop, Torque on Current Loop, Magnetic Dipole, The Moving Coil Galvanometer, etc.
Chapter 8 - MAGNETISM AND MATTER	The Bar Magnet, Magnetism and Gauss's Law, The Earth's Magnetism, Magnetisation and Magnetic Intensity, Magnetic Properties of Materials, Permanent Magnets and Electromagnets, etc.
Chapter 9 - ELECTROMAGNETIC INDUCTION	The Experiments of Faraday and Henry, Magnetic Flux, Faraday's, Law of Induction, Lenz's Law and Conservation of Energy, Inductance, AC Generator, etc.
Chapter 10 - ALTERNATING CURRENT	AC Voltage Applied to a Resistor, Representation of AC Current and Voltage by Rotating Vectors - Phasors, AC Voltage Applied to an Inductor, AC Voltage Applied to a Capacitor, AC Voltage Applied to a Series LCR Circuit, Power in AC Circuit: The Power Factor, LC Oscillations, Transformers, etc.
Chapter 11 - ELECTROMAGNETIC WAVES	Displacement Current, Electromagnetic Waves, Electromagnetic Spectrum, etc.

Chapter 12 - DUAL NATURE OF RADIATION AND MATTER	Electron Emission, Photoelectric Effect, Experimental Study of Photoelectric Effect, Photoelectric Effect and Wave Theory of Light, Einstein's Photoelectric Equation: Energy Quantum of Radiation, Particle Nature of Light: The Photon Wave Nature of Matter, Davisson and Germer Experiment, etc.
Chapter 13 - ATOMS	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 of Quantisation, etc.
Chapter 14 - NUCLEI	Atomic Masses and Composition of Nucleus, Size of the Nucleus, Mass-Energy and Nuclear Binding Energy, Nuclear Force, Radioactivity, Nuclear Energy, etc.
Chapter 15 - SEMICONDUCTOR ELECTRONICS: MATERIALS, DEVICES AND SIMPLE CIRCUITS	Classification of Metals, Conductors and Semiconductors, Intrinsic Semiconductor, Application of Junction Diode as a Rectifier, Special Purpose p-n Junction Diodes, Junction Transistor, Digital Electronics and Logic Gates, Integrated Circuits, etc.
Chapter 16 - COMMUNICATION SYSTEMS	Elements of a Communication System, Basic Terminology Used in Electronic Communication System, Bandwidth of signals, Bandwidth of Transmission Medium, Propagation of Electromagnetic Waves, Modulation and its Necessity, Amplitude Modulation, etc.

Also Refer To

NCERT Syllabus	NCERT Book
NCERT Solutions	NCERT Exemplar Solutions