

## 11086 - PHYSICS—PART I

Chapter	Page No.	Dropped Topics/Chapters
Chapter 1: Physical World	1-15	1.1 What is Physics? 1.2 Scope and Excitement of Physics 1.3 Physics, Technology and Society 1.4 Fundamental Forces in Nature 1.5 Nature of Physical Laws

List of Rationalised Content in Textbooks for Class XI

Chapter 2: Units and Measurements	18-27	2.3 Measurement of Length 2.4 Measurement of Mass 2.5 Measurement of Time 2.6 Accuracy, Precision of Instruments and Errors in Measurement
	36-38	Exercises 2.13, 2.14, 2.19-2.22, 2.24-2.33
Chapter 3: Motion in a Straight Line	39-43	3.2 Position, Path Length and Displacement
	51-53	3.3 Average Velocity and Average Speed
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	61-64	Appendix 3.1
Chapter 4: Motion in a Plane	76-77	4.9 Relative Velocity in Two Dimensions
	86-88	Exercises 4.12-4.14; 4.26-4.32
Chapter 5: Laws of Motion	111-113	Exercises 5.24-5.40
Chapter 6: Work, Energy and Power	126-128	6.10 Various Forms of Energy: the Law of Conservation of Energy
	137-139	Exercises 6.24-6.29
Chapter 7: System of Particles and Rotational Motion	164-167	7.10 Theorems of Perpendicular and Parallel Axes
	173-175 178-182	7.14 Rolling Motion Exercises 7.10, 7.18-7.19, 7.21-7.33
	186	8.11 Geostationary and Polar Satellites
Chapter 8: Gravitation	196-198 202-206	8.12 Weightlessness Exercises 8.3-8.5, 8.22-8.25 Appendix 8.1

## 11087 - PHYSICS—PART II

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	241	9.6.2 Determination of Young's Modulus of the Material of a Wire
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Chapter 10: Mechanical Properties of Fluids	260	10.4.2 Venturi-meter
	261	10.4.3 Blood Flow and Heart Attack
	269	10.6.6 Detergents and Surface Tension
	276-277	Exercises 10.21-10.31
	274-275	Appendix 10.1
Chapter 11: Thermal Properties of Matter	295-296	11.9.5 Greenhouse Effect
	302	Exercises 11.21 - 11.22
Chapter 12: Thermodynamics	313	12.9 Heat Engines
	313-314	12.10 Refrigerators and Heat Pumps
	322	Exercises 12.7 and 12.10
Chapter 13: Kinetic Theory	335	13.6.5 Specific Heat Capacity of Water
	340	Exercises 13.11-13.14
Chapter 14: Oscillations	352-353	14.9 Damped Simple Harmonic Motion
	355-359	14.10 Forced Oscillations and Resonance
	365-366	Exercises 14.16 (p. 365), 14.20-14.25
Chapter 15: Waves	384-387	15.8 Doppler Effect
	393-394	Exercises 15.20-15.27

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Answers	223-226 228-234 396-402 404	In accordance with the reduction in Exercises in text.
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## 12089 - Physics—Part I

Chapter	Page No.	Dropped Topics/ Chapters
Chapter 1: Electric Charges and Fields	2-7	1.2 Electric Charge (delete only activity with paper strips and making electroscope) 1.3 Conductors and Insulators (delete only concept of earthing) 1.4 Charging by Induction
	47-50	Exercises 1.13, 1.25-1.34
Chapter 2: Electrostatic Potential and Capacitance	81	2.15 Energy Stored in a Capacitor (delete only derivation)
	87-92	Exercises 2.12 to 2.36
Chapter 3: Current Electricity	102-103	3.7 Resistivity of Various Materials (delete Tables 3.1 and 3.2 and Carbon resistors, Colour code for carbon resistor)
	107-109	3.10 Combinations of Resistors - Series and Parallel
	112-113	Example 3.5
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	140-142	4.4.1 Velocity Selector 4.4.2 Cyclotron
	152-153	4.8.2 The Toroid
	162-163	4.10.3 The Magnetic Dipole Moment of a Revolving Electron
	170-172	Exercises 4.14-4.28
Chapter 5: Magnetism and Matter	176-179	5.2.2 Bar Magnet as an Equivalent Solenoid (delete only mathematical treatment) 5.2.3 The Dipole in a Uniform Magnetic Field (delete only mathematical treatment)
	180	Example 5.4
	185-189	5.4 Earth's Magnetism 5.4.1. Magnetic Declination and Dip
	191	Table 5.2
	194-196	5.6.2 Paramagnetism (delete only Curie's Law) 5.6.3 Ferromagnetism (delete only Curie's temperature; and Hysteresis)
		5.7 Permanent Magnets and Electromagnets
	200-203	Exercises 5.1, 5.2, 5.9-5.11, 5.13-5.25
Chapter 6: Electromagnetic Induction	215-219	6.7 Energy Consideration: A Quantitative Study 6.8 Eddy Currents
	230-232	Exercises 6.6, 6.10-6.17

Chapter 7: Alternating Current	240	Figure 7.7 Magnetisation and Demagnetisation of an Inductor
	243	Figure 7.10 Charging and Discharging of a Capacitor
	246-247	7.6.2 Analytical Solution (of series LCR circuit)
	249-251	7.6.3 Resonance (delete only Sharpness of Resonance)
	255-259 266-268	7.8 LC Oscillations Exercises 7.6, 7.8, 7.10, 7.12-7.26
Chapter 8: Electromagnetic Waves	273-274	Example 8.1
	276-278	8.3.2 Nature of Electromagnetic Waves (delete only about ether and page 277)
	279-280	Example 8.4 and 8.5
	287	Exercises 8.11-8.15

### 12090 - Physics—Part II

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Chapter 9: Ray Optics and Optical Instruments	318	9.3 Refraction (delete only advanced sunrise and delayed sunset)
	321-322	9.4.1(i) Mirage
	332-335	9.4.1(ii) Diamond
		9.7 Some Natural Phenomena due to Sunlight
	346	9.7.1 The Rainbow 9.7.2 Scattering of Light Exercise 9.18

Chapter 10: Wave Optics	358-359	10.3.4 Doppler Effect
	359	Example 10.1
	363-367	10.5 Interference of Light Waves and Young's Experiment (retain the final expressions for dark and bright fringes but delete the derivation; delete expression for fringe width)
	368-371	10.6 Diffraction (retain only qualitative treatment)
	372-376	10.6.3 Resolving Power of Optical Instruments 10.6.4 Validity of Ray Optics
	379-381	10.7.1 Polarisation by Scattering 10.7.2 Polarisation by Reflection
	383-385	Exercises 10.7-10.21
Chapter 11: Dual Nature of Radiation and Matter	388	Table 11.1
	397	Example 11.3
	400-404	11.8 Wave Nature of Matter (delete only derivation for de Broglie wavelength of accelerated electron; and Heisenberg's uncertainty principle) 11.9 Davisson and Germer Experiment
	407-413	Appendix 11.1 The History of Wave-Particle Flip-Flop Exercises 11.5, 11.7, 11.12 to 11.14, 11.16, 11.17, 11.19-11.37

Chapter 12: Atoms	421-422 424-426  429  430 436-437	12.3.1 Spectral Series ✓ 12.4 Bohr Model of the Hydrogen Atom (retain only the expression for radius of $n$ th possible orbit but delete its derivation) 12.5 The Line Spectra of the Hydrogen Atom (retain only qualitative treatment) Example 12.6 ✓ Exercises 12.3, 12.11-12.17
Chapter 13: Nuclei	446-451  452-455 462-466	13.6.1 Law of Radioactive Decay ✓ 13.6.2 Alpha Decay ✓ 13.6.3 Beta Decay ✓ 13.6.4 Gamma Decay ✓ 13.7.2 Nuclear Reactor ✓ Exercises 13.1, 13.2, 13.6-13.10, 13.12-13.14, 13.18, 13.22-13.31 ✓
Chapter 14: Semiconductor Electronics: Material Devices and Simple Circuits	485-495   497-499	14.8 Special Purpose $p$ - $n$ junction Diodes ✓ 14.9 Digital Electronics and Logic Gates ✓ Exercises 14.7-14.15 ✓