

## Revision (5–6 weeks from exam)

Session	Topic	Subtopic	Important lessons	Done
1	Advanced Mechanics	Kinematics	<u>SUVAT Equations</u>	<input type="checkbox"/>
		Projectile Motion	<u>Projectile Motion Relationships</u> , <u>Projectile Motion Examples</u>	<input type="checkbox"/>
2		Circular Motion	<u>Centripetal Force and Acceleration</u> , <u>Horizontal Circular Motion</u>	<input type="checkbox"/>
		Motion in Gravitational Fields	<u>Gravitational Fields</u> , <u>Orbits</u> , <u>Kepler's Laws: Exam Application</u>	<input type="checkbox"/>
3	Electromagnetism	Charged Particles, Conductors and Electric and Magnetic Fields	<u>Electrostatic Charges, Fields and Forces</u> , <u>Work and Charge in Electric Fields</u> , <u>Charged Particles in Magnetic Fields</u>	<input type="checkbox"/>
		The Motor Effect	<u>Parallel Current-Carrying Waves</u>	<input type="checkbox"/>
4		Electromagnetic Induction	<u>Lenz's Law</u> , <u>Lenz's Law Examples</u> , <u>Use of Transformers and Power Transmission</u>	<input type="checkbox"/>
		Applications of the Motor Effect	<u>Application of Lenz's Law and Back EMF</u> , <u>DC Motors</u>	<input type="checkbox"/>
5	The Nature of Light	Electromagnetic Spectrum		<input type="checkbox"/>
		Light: Wave Model	<u>Superposition</u>	<input type="checkbox"/>
		Light: Quantum Model	<u>The Photon Model of Light</u> , <u>The Photoelectric Effect</u>	<input type="checkbox"/>
6		Light and Special Relativity	<u>Inertial Frames of Reference</u> , <u>Special Relativity</u> , <u>Time Dilation</u> , <u>Length Contraction</u>	<input type="checkbox"/>
		From the Universe to the Atom	<u>The Hertzsprung-Russell Diagram</u>	<input type="checkbox"/>
7		Structure of the Atom		<input type="checkbox"/>
		Quantum Mechanical Nature of the Atom	<u>Limitations of Atomic Models</u> , <u>Line Spectra and Electron Energy Levels</u>	<input type="checkbox"/>
8		Properties of the Nucleus	<u>Particle Equations</u> , <u>Types of Radiation</u> , <u>Nature of Radioactive Decay</u> , <u>Mass-Energy Equivalence</u>	<input type="checkbox"/>
		Deep Inside the Atom		<input type="checkbox"/>

Practice (3–4 weeks from exam)

Session	Topic	Subtopic	Confidence	Done
9	Advanced Mechanics	Kinematics	<div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
		Projectile Motion	<div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
10		Circular Motion	<div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
		Motion in Gravitational Fields	<div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
11	Electromagnetism	Charged Particles, Conductors and Electric and Magnetic Fields	<div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
		The Motor Effect	<div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
12		Electromagnetic Induction	<div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
		Applications of the Motor Effect	<div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
13	The Nature of Light	Electromagnetic Spectrum	<div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
		Light: Wave Model	<div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
		Light: Quantum Model	<div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
14		Light and Special Relativity	<div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
		Origins of the Elements	<div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
15		Structure of the Atom	<div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
		Quantum Mechanical Nature of the Atom	<div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
16		Properties of the Nucleus	<div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
		Deep Inside the Atom	<div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>