

ADVANCED LEVEL PHYSICS CBC
P510/1 (PHYSICS THEORY)

| SECTION | ITEM | CONSTRUCT | DESCRIPTION | ELEMENTS OF CONSTRUCT | SUBTOPICS |
|---|--------------------|------------------|---|-----------------------|---|
| A (compulsory) | Item one | Particles | Investigation of atomic, quantum, and nuclear phenomena and their applications. | ✓Modern physics (3) | 31. Atomic particles 32. Quantum theory 33. Nuclear processes |
| B (Learner attempts 1 out of 2 items) | Item two and three | Force and motion | Analysis of how force affects the state of bodies. | ✓Mechanics (10) | 1.Measurement and Dimensions of Physical Quantities. 2. Statics 3. Linear Motion 4. Motion Under Gravity 5. Work, Energy and Power 6. Solid Friction 7. Fluid Mechanics 8. Mechanical Properties of Matter 20.Circular Motion 22.Gravitation |

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| <p>C</p> <p>(Learner attempts 1 out of 2 items)</p> | <p>Item four and five</p> | <p>Energy</p> | <p>Exploration and application of energy forms and transformations.</p> | <p>✓Heat ✓Light ✓Waves ✓Mechanics (only SHM) (12)</p> | <p>9.Thermometry. 10.Heat Quantities 11.Transfer of Heat 12.Behaviour of Gases 13.Thermodynamics 14.Reflection of Light 15.Refraction of Light 16.Optical Instruments 21.Simple Harmonic Motion 23.Progressive Waves 24.Stationary Waves 25.Sound Waves</p> |
| <p>D</p> <p>(Learner attempts 1 out of 2 items)</p> | <p>Item six and seven</p> | <p>Charges and Fields</p> | <p>Exploration of how electric and magnetic fields interact in systems and devices.</p> | <p>✓Electricity ✓Magnetism (8)</p> | <p>17.Electrostatics 18.Capacitors 19.Digital Electronics 26.Current Electricity 27.Magnetism in Matter 28.Magnetic Effect of an electric</p> |

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| | | | | | Current 29. Electromagnetic Induction 30. A.C Circuits |
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NOTE:

- Section A comprises of one compulsory item.
- Section B comprises of two items and a learner answers one.
- Section C comprises of two items and a learner answers one.
- Section D comprises of two items and a learner answers one.
- In total four items must be attempted by the learner and each carries 20 marks.
- The paper is for 2 hours 40 minutes.
- Advanced Physics has only 2 papers i.e Paper one being theory and paper 2 being practical.

P510/2 PHYSICS PRACTICAL