Physics Portions for First Term Examination – Jan, 2022

<u>Year 9 – Year 13</u>

Year 9

- SP3 Conservation of energy (3a, 3b, 3c. 3d, 3e, 3f)
- SP4 Waves (4a, 4b, 4c, 4d, 4e, 4f, 4g)
- SP 5a Ray Diagrams (5a only-Pg 66)

<u>Year 10</u>

- SP1 Motion (1a, 1b, 1c, 1d)
- SP2 Motion and Forces (2a, 2b, 2c, 2d, 2e, 2f, 2g, 2h, 2i)
- SP3 Conservation of energy (3a, 3b, 3c. 3d, 3e, 3f)
- SP4 Waves (4a, 4b, 4c, 4d, 4e, 4f, 4g)
- SP 5 Light and electromagnetic Spectrum (5a, 5b, 5c, 5d, 5e, 5f, 5g, 5h, 5i)
- SP 6 Radioactivity (6a, 6b, 6c, 6d, 6e, 6f, 6g, 6h, 6i, 6j, 6k, 6l, 6m)

<u>Year 11</u>

Paper 1

- SP1 Motion (1a, 1b, 1c, 1d)
- SP2 Motion and Forces (2a, 2b, 2c, 2d, 2e, 2f, 2g, 2h, 2i)
- SP3 Conservation of energy (3a, 3b, 3c, 3d, 3e, 3f)
- SP4 Waves (4a, 4b, 4c, 4d, 4e, 4f, 4g)
- SP 5 Light and the electromagnetic Spectrum (5a, 5b, 5c, 5d, 5e, 5f, 5g, 5h, 5i)
- SP 6 Radioactivity (6a, 6b, 6c, 6d, 6e, 6f, 6g, 6h, 6i, 6j, 6k, 6l, 6m)
- SP 7 Astronomy (7a, 7b, 7c, 7d, 7e)

Paper 2

- SP 8 Energy-forces doing work (8a)
- SP10 Electricity and circuits (10a,10b,10c, 10d, 10 e, 10f, 10g, 10h, 10 i)

SP11 Static Electricity (11a, 11b, 11c)

SP12 Magnetism and motor effect (12a, 12b, 12c)

SP13 Electromagnetic induction (13a, 13b, 13c)

SP14 Particle model (14a, 14b, 14c, 14d, 14e)

<u>Year 12</u>

Topic 1- Working as a Physicist

1- Units
2. Estimation

Topic 2- Mechanics

2.1 Motion

2.2 Energy

Topic 3 - Electric circuits

- 3.1 Electrical quantities
- 3.2 Complete Electrical circuits

<u>Year 13</u>

Paper 1

- **Topic 1 Working as a Physicist**
- **Topic 2 Mechanics**
- **Topic 3 Electric circuits**
- **Topic 4 Materials**

Topic 5 - Waves and particle nature of light

And concepts from relevant practicals will be included.

Paper 2

- **Topic 1- Working as a Physicist**
- **Topic 6 Further Mechanics**

Topic 7 Electric and Magnetic fields

Topic 8 Nuclear and particle physics

8.1 – Probing Matter

8.21 – Particle accelerators

Topic 10 – Nuclear Radiation

Topic 13 – Oscillations

- 13.1 Simple harmonic motion (SHM)
- 13.2 SHM mathematics
- 13.3 SHM energy

And concepts from relevant practicals will be included.