

**DIPLOMA IN RADIOLOGY IMAGING TECHNOLOGY
FIRST YEAR
PAPER III – X-RAY MACHINES ACCESSORIES**

Q.P. Code: 841403

Time : Three Hours

Maximum : 100 Marks

Answer All questions.

I. Elaborate on:

(3 x 10 = 30)

1. Explain in detail of Image Intensifying Tube (I.I. Tube) Construction and Working principle.
2. What are the Components of an X-ray Generator? Explain in detail about the Kilo-voltage Circuit.
3. What is Transformer? Explain in detail about the step-up, step-down and Auto- transformer.

II. Write notes on:

(10 x 5 = 50)

1. X-Ray tube Cooling.
2. Target in X-ray tube.
3. Filament Circuit.
4. Semi – Conductors.
5. Stationary Anode X-ray tube.
6. Filters and its uses.
7. Line Focus principle.
8. Potter – Bucky System.
9. Diode.
10. Collimators.

III. Short answers on:

(10 x 2 = 20)

1. Automatic Exposure Control.
2. Filament.
3. Voltmeter.
4. Fluorescence.
5. Rectifier.
6. Conductors.
7. Half – Value Layer (HVL).
8. Thermionic Emission.
9. X – Ray Cassette.
10. Exposure Timer.
