

[LJ 0816]

AUGUST 2016

Sub. Code: 1403

**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. Principles of rotating anode in X-ray tube. Draw and explain in detail.
2. Factors affecting the quality and intensity of X-rays.
3. Filters and their uses.

**II. Write notes on:**

**(10 x 5 = 50)**

1. Properties of X-rays.
2. Focussing cup.
3. Scatter radiation.
4. Auto transformer.
5. Half wave rectifier.
6. Phototimer.
7. Space charge effect.
8. Characteristic X-rays.
9. Types of collimators.
10. Filament circuit.

**III. Short answers on:**

**(10 x 2 = 20)**

1. Heel effect.
2. Half value layer.
3. Focal spot size.
4. Anode angle.
5. Types of grid.
6. Transformer efficiency.
7. Thermionic emission.
8. Core of transformer.
9. X-ray tube cooling.
10. Three phase X-ray generator.

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