

[LK 0217]

FEBRUARY 2017

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. Draw and explain the parts of modern X-ray tube.
2. Generators used in radiology.
3. Collimators – their uses and types.

**II. Write notes on:**

**(10 x 5 = 50)**

1. Anode angle.
2. Uses of filters.
3. Transformer rating.
4. X-ray tube housing.
5. Full wave rectifier circuit.
6. Thyristor.
7. X-ray beam quality.
8. Focal spot size.
9. Grids and their types.
10. Advantage of Focussing cup.

**III. Short answers on:**

**(10 x 2 = 20)**

1. Phototimers.
2. Line focus principle.
3. Space charge effect.
4. Types of anode.
5. X-ray tube cooling.
6. Scatter radiation.
7. Filament circuit.
8. Image intensifier tube.
9. Heat loading.
10. Thermionic emission.

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