

[LF 0212]

AUGUST 2014

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:

(3x10=30)

1. What is transformer? Explain in detail about step-up, step-down and Auto Transformer.
2. Explain in detail of Modern X-Ray tube construction and working principles.
3. Explain in detail of Image Intensifying Tube (I I Tube) construction and working principle.

II. Write notes on:

(10x5=50)

1. Half wave rectifier circuit
2. X-Ray tube collimation
3. Pottor Bucky System
4. Tube rating chart
5. X-Ray tube housing
6. Generations of X-ray tube
7. Diode
8. M.M.R. - Mass Miniature Radiography
9. A.E.C. - Automatic Exposure Control
10. H.T. Transformer

III. Short answers on:

(10x2=20)

1. Anode heel effect
2. Inverse-square law
3. Gamma-Rays
4. Grids
5. Tube cooling system
6. Ionisation
7. Large focal spot
8. Volt meter
9. X-ray couch
10. Photo timer
