[LN 1018]

OCTOBER 2018

Sub. Code: 1802

#### M.Sc. RADIOLOGY AND IMAGING TECHNOLOGY EXAMS FIRST YEAR PAPER II – CONVENTIONAL RADIOLOGICAL AND IMAGING EQUIPMENT

#### Q.P. Code : 281802

## **Time: Three hours**

#### I. Elaborate on:

- 1. Describe in detail about technical aspects of Mammographic unit.
- 2. With a neat circuit diagram. Explain the working principle of High frequency X ray circuit.

#### II. Write notes on:

- 1. Grid Controlled X-ray tube.
- 2. Moving coil Galvanometer.
- 3. Use of relay in diagnostic X-ray unit.
- 4. Beam limiting devices.
- 5. Image Intensifier tube.
- 6. Skull X-ray unit.
- 7. Measurement of focal spot size in X-ray tube.
- 8. Automatic Exposure Control.
- 9. Full wave rectifier.
- 10. Factors which depends on the control of scatter radiation?

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 $(2 \times 20 = 40)$ 

Maximum: 100 Marks

 $(10 \times 6 = 60)$ 

[LO 0519]

MAY 2019

Sub. Code: 1802

## M.Sc. RADIOLOGY AND IMAGING TECHNOLOGY EXAMS FIRST YEAR PAPER II – CONVENTIONAL RADIOLOGICAL AND IMAGING EQUIPMENT

# Q.P. Code : 281802

| Time: Three hours                  | Maximum : 100 Marks |
|------------------------------------|---------------------|
| I. Elaborate on:                   | $(2 \ge 20 = 40)$   |
| 1. Control of scattered radiation. |                     |
| 2. Mammography unit.               |                     |
| II. Write notes on:                | (10  x  6 = 60)     |
| 1. Beam limiting devices.          |                     |
| 2. Vidicon camera tube.            |                     |
| 3. Types of grids.                 |                     |
| 4. Ammeter and Voltmeter.          |                     |
| 5. Filament Circuit.               |                     |
| 6. Types of Filters.               |                     |
| 7. Anode heel effect.              |                     |
| 8. Stationary anode X-ray tube.    |                     |
| 9. Main voltage compensator.       |                     |
| 10. Anode rating chart.            |                     |

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[LP 1019]

OCTOBER 2019

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## M.Sc. RADIOLOGY AND IMAGING TECHNOLOGY EXAMS FIRST YEAR PAPER II – CONVENTIONAL RADIOLOGICAL AND IMAGING EQUIPMENT

#### Q.P. Code : 281802

| Time: Three hours                                    | Maximum : 100 Marks  |
|--|----------------------|
| I. Elaborate on:                                     | $(2 \times 20 = 40)$ |
| 1. Generation of X-ray tubes.                        |                      |
| 2. Mobile X-ray unit.                                |                      |
| II. Write notes on:                                  | $(10 \times 6 = 60)$ |
| 1. 3 phase rectifier circuit.                        |                      |
| 2. Space charge compensation.                        |                      |
| 3. Moving coil galvanometer.                         |                      |
| 4. Automatic exposure control.                       |                      |
| 5. Dental X-ray unit.                                |                      |
| 6. Fluoroscent material used in fluoroscopic screen. |                      |
| 7. Basic principle of cine fluoroscopy.              |                      |
| 8. Measurement of focal spot of an X-ray tube.       |                      |
| 9. High tension selector switch.                     |                      |

- 9. High tension selector switch.
- 10. Grid controlled X-ray tube.

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