

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0423]

APRIL 2023

Sub. Code: 1843

**B.Sc. RADIOGRAPHY & IMAGING TECHNOLOGY**  
**FIRST YEAR (Regulation 2018-2019 onwards)**  
**PAPER III – RADIOGRAPHY EQUIPMENTS, MAINTENANCE AND**  
**QUALITY CONTROL RELATED TO X-RAY ONLY**

*Q. P. Code: 801843*

**Time: Three hours**

**Maximum : 100 Marks**

**Answer ALL Questions**

**I. Elaborate on:** **(3 x 10 = 30)**

1. Describe with neat diagram, the construction and working of Image Intensifier.
2. Describe in detail, the principle of image formation in Computed Tomography.
3. Describe in detail, Intraoral Dental Radiographic unit and Orthopantomography X-ray unit.

**II. Write notes on:** **(8 x 5 = 40)**

1. Construction of rotating anode X-ray tube.
2. Portable X-ray unit.
3. Image Intensifier Tube.
4. Direct digital radiography.
5. Construction of CR image reader.
6. Mammographic X-ray tube.
7. Multisection Tomography.
8. Explain three CT Artifacts.

**III. Short answers on:** **(10 x 3 = 30)**

1. Anode Heel effect.
2. Grid Controlled X-ray tube.
3. Capacitor discharge X-ray tube.
4. Fluorescent screen.
5. Digital mammography.
6. Photostimulable Phosphor.
7. Advantages of PACS.
8. Dental X-ray film.
9. Detector used in DR.
10. Target used in mammography unit.

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