

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

[AHS 1023]

OCTOBER 2023

Sub. Code: 2505

**M.Sc. RADIOGRAPHY AND IMAGING TECHNOLOGY
FIRST YEAR (From 2020-2021 onwards)
PAPER VI – MODERN RADIOLOGICAL AND IMAGING EQUIPMENT**

Q.P. Code: 282505

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate notes on:

(2 x 20 = 40)

1. Describe the physical principles of CR and DR. Discuss in detail their advantages and disadvantages.
2. What do you understand by perfusion imaging? Describe briefly CT and MR perfusion imaging techniques and applications.

II. Write Short Notes on:

(10x6 = 60)

1. Advantages and disadvantages of 3T MRI over 1.5T MRI.
2. Multi-slice CT technology.
3. Artificial intelligence in radiology.
4. Tissue harmonic imaging.
5. Full field digital mammography.
6. Zero lead aprons and advances in lead apron technology.
7. 3D and 4D ultrasound.
8. Discuss principle and equipment of Cine Fluoroscopy.
9. a) Portable radiography b) Mobile CT scanner.
10. Ventilation perfusion scanning of lung.
