

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

[AHS 1023]

OCTOBER 2023

Sub. Code: 2501

**M.Sc. RADIOGRAPHY AND IMAGING TECHNOLOGY
FIRST YEAR (From 2020-2021 onwards)
PAPER II - RADIOLOGICAL PHYSICS**

Q.P. Code: 282501

Time: Three hours

Maximum: 100 Marks

Answer ALL Questions

I. Elaborate on:

(2 x 20 = 40)

1. Production of X-rays with diagrammatic representation.
2. Describe the Physics and principle of mammography.

II. Write notes on:

(10 x 6 = 60)

1. Types of MRI magnets.
2. TLD Badge.
3. Types of ultrasound transducers.
4. Digital subtraction angiography [DSA].
5. Flat panel detector.
6. Radiation units.
7. Compton Effect.
8. Focal spot and sizes in X-ray tube.
9. Principle of Automatic Exposure Control (AEC).
10. Half value thickness.
