

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

[AHS 0222]

**FEBRUARY 2022
(OCTOBER 2021 EXAM SESSION)**

Sub. Code: 2501

**M.Sc. RADIOGRAPHY AND IMAGING TECHNOLOGY
FIRST YEAR**

(Candidates admitted from 2019-2020 onwards – Paper I)

(Candidates admitted from 2020-2021 onwards – Paper II)

PAPER I & II – RADIOLOGICAL PHYSICS

Q.P. Code : 282501

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate notes on:

(2 x 20 = 40)

1. Describe the Physics and principle of mammography.
2. What are the factors affecting radiographic quality? How to improve the Radiographic quality?

II. Write Short Notes on:

(10x6 = 60)

1. Scatter radiation- formation and control
2. Write about interlocking and X-ray tube overload protection
3. Half value thickness
4. Describe the principle of Magnetic Resonance angiography
5. Annihilation coincidence detection.
6. Explain about the relationship between the absorbed dose and equivalent dose.
7. Write notes on Doppler Physics
8. Heat dissipation methods in X-ray tube
9. Radiation units.
10. Discuss the interaction between ultrasound and matter.
