

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

[AHS 0321]

MARCH 2021

Sub. Code: 2501

(OCTOBER 2020 EXAM SESSION)

M.Sc. RADIOGRAPHY AND IMAGING TECHNOLOGY

FIRST YEAR (From 2019-2020 onwards)

PAPER I – RADIOLOGICAL PHYSICS

Q.P. Code : 282501

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate notes on:

(2 x 20 = 40)

1. Discuss in detail about the physics, principle and equipment of Digital Radiography.
2. Describe the physical principles of MRI.

II. Write Short Notes on:

(10x6 = 60)

1. Focal spot in a x-ray tube
2. Anode heel effect
3. Radiation detection equipment.
4. Free induction decay
5. Types of generator and working principle
6. Image Intensifier Tube
7. Characteristic X-ray
8. Ultrasound transducer
9. What are hard and soft x-rays and write about the added and inherent filtration?
10. Principle of AEC
