

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

[AHS 0321]

MARCH 2021

Sub. Code: 3601

(OCTOBER 2020 EXAM SESSION)

POST GRADUATE DIPLOMA IN RADIOLOGY & IMAGING TECHNOLOGY

(From 2014-2015 onwards)

PAPER I – FUNDAMENTALS OF RADIATION PHYSICS & PHYSICS OF DIAGNOSTIC RADIOLOGY

Q.P. Code : 363601

Time : Three hours

Answer ALL Questions

Maximum : 100 Marks

I. Elaborate notes on:

(2 x 20 = 40)

1. What is DSA? Discuss its principle & advantages it offers over conventional angiography.
2. Discuss Principle & Clinical applications of Spiral CT. A note on CT generation.

II. Write Short Notes on:

(10x6 = 60)

1. Piezoelectric effect.
2. PACS & filmless radiology.
3. SPECT.
4. Modern X-ray tube.
5. Larmor frequency.
6. Advantages of digital radiology over conventional.
7. Technical principles of mammography equipment.
8. Beam hardening effect.
9. Factors affecting quality and intensity of x ray.
10. Transducers used for Cranial sonography.
