

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

[AHS 0922]

SEPTEMBER 2022

Sub. Code: 1432

(FEBRUARY 2022 & AUGUST 2022 EXAM SESSIONS)

DIPLOMA IN RADIOGRAPHY AND IMAGING TECHNOLOGY
SECOND YEAR – (Regulation from 2018-2019)
PAPER II – EQUIPMENTS, BASIC TECHNIQUES OF MODERN IMAGING
MODALITIES
Q.P. Code: 841432

Time: Three Hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. Discuss in detail about the digital radiography and its types. Mention the advantages of DR over conventional radiography.
2. Describe in detail about the various generations of CT scanner.
3. Explain the interaction of ultrasound with matter.

II. Write notes on:

(10 x 5 = 50)

1. Explain the Physical characteristics of contrast media.
2. Write a note on multi detector CT.
3. Write a note on effect of contrast agents used in MRI.
4. Explain about different types of display modes.
5. Write a note on factors affecting image quality in CT.
6. Discuss in short about MR artifacts.
7. Write a note on slip ring technology in CT.
8. Discuss in short about gradient coils in MRI.
9. Write about Ultrasound transducers.
10. Write about compression paddle.

III. Short answers on:

(10 x 2 = 20)

1. What is Tesla?
2. Name the phosphor used in computed radiography.
3. What is the use of PACS in diagnostic radiography?
4. What is zebra artifact in MRI?
5. Define pixel and voxel in CT.
6. Define flip angle.
7. What is linear attenuation co-efficient?
8. What is CT number?
9. What is the target material used in mammography?
10. What are the causes of reverberation artifacts?
