

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

**[AHS 0122]**

**JANUARY 2022**

**Sub. Code: 1432**

**(FEBRUARY 2021 & AUGUST 2021 EXAM SESSION)**

**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. Explain about type of Magnets used for MRI & discuss about any 3 Artefacts and its Remedies.
2. Explain the principle of Ultrasound Image formation and various modes of Ultrasound Imaging.
3. Explain about First Generation CT.

**II. Write notes on:**

**(10 x 5 = 50)**

1. Radiation safety Equipments.
2. Cone beam CT scan.
3. Fluoroscopy.
4. Properties of X-Ray.
5. Write a note on CR image reader and its advantages and disadvantages.
6. Write about Artifacts seen in Computed Tomography.
7. HRCT Temporal Bone.
8. Compression in Mammography.
9. Basics of Slip ring technology and advantages.
10. FLAIR imaging.

**III. Short answers on:**

**(10 x 2 = 20)**

1. Write about Beam Hardening Artifact.
2. SWI.
3. Uses of 'C' Arm.
4. What are the Contrast used in CT.
5. Role of Ultrasound in Acute Abdomen.
6. Barium Enema.
7. Larmor Frequency.
8. Anomaly Scan.
9. Bremsstrahlung Radiation.
10. M mode in Ultrasonogram.

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