

**DIPLOMA IN RADIOLOGY IMAGING TECHNOLOGY****SECOND YEAR****PAPER II – EQUIPMENTS, BASIC TECHNIQUES OF MODERN  
IMAGING MODALITIES***Q.P. Code: 841412***Time : Three Hours****Maximum : 100 Marks****Answer All questions.****I. Elaborate on:****(3 x 10 = 30)**

1. Explain the CR system. Advantages of CR and DR.
2. Basic principle of MRI.
3. Principle of CT scan and explain the types of generation.

**II. Write Notes on:****(10 x 5 = 50)**

1. Construction of ultrasound probe.
2. Superconducting magnet.
3. Principle of mammography.
4. Describe the physical principal of multidetector CT.
5. Type of detectors in CT Scan.
6. Indirect digital radiography.
7. Gradient coils in MRI.
8. Basics of slip ring technology and advantages.
9. T1 weighted imaging.
10. Magnets used in MRI.

**III. Short Answers on:****(10 x 2 = 20)**

1. Name four nuclei in human body suitable for MR imaging.
2. Contraindications of MRI.
3. Spiral CT.
4. Types of doppler studies.
5. CT dose index.
6. Name two artifacts in MRI.
7. Name the crystal used in US.
8. PET CT.
9. Anomaly scan.
10. Define pitch.

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