

- Q.30 Summarize the working principle of Gamma Camera in a short note.
- Q.31 Explain X ray circuits in a short note.
- Q.32 Explain fluoroscopy in a short note.
- Q.33 Write a short note on mammography.
- Q.34 Explain line focus principle in a short note.
- Q.35 Write the components of CT.

Section-D

Note: Long answer type questions. Attempt any two questions out of three Questions. (2x10=20)

- Q.36 Explain any two interactions of X rays with matter in details.
- Q.37 Define principle of CT and explain its various components.
- Q.38 Describe the working principle of MRI and Explain the magnets used in the MRI machine.

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**5th Sem., Branch : Med. Eltx.
Subject : Medical Imaging Techniques (MIT)**

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Multiple choice Questions. All Questions are compulsory. (10x1=10)

- Q.1 Computed Tomography is a _____ equipment.
- a) Diagnostic
 - b) Therapeutic
 - c) ICU
 - d) Surgical
- Q.2 Sound waves are used in
- a) Xray
 - b) USG
 - c) Defibrillator
 - d) Ventilator
- Q.3 Which is not a scanning mode in the USG.
- a) A
 - b) B
 - c) X
 - d) AB
- Q.4 Gantry is a part of
- a) Blood Cell Counter
 - b) Ventilator
 - c) Monitor
 - d) CT
- Q.5 X rays were discovered by
- a) Marie Curie
 - b) Wilhelm Roentgen
 - c) Henri Becquerel
 - d) Pierre Curie

- Q.6 "MRI" stand for
 a) Magneto-Ray Idometry
 b) Medical Radiometry Instrument
 c) Magnetic Resonance Imaging
 d) Maximal Radiology Imaging
- Q.7 Color doppler is used in
 a) USG b) Gamma Camera
 c) Xray d) MRI
- Q.8 Line focus principle is used in
 a) Monitor b) X Ray
 c) EEG d) ECG
- Q.9 Which is not a part of USG
 a) Tansducer b) Probe
 c) X ray tube d) Detector
- Q.10 NMR Coil is a system component of
 a) MRI b) Ventilator
 c) Monitor d) X rays
- Q.13 _____ is a system component of Gamma Camera.
- Q.14 Expand FID.
- Q.15 Write one use of USG.
- Q.16 Define Transducer.
- Q.17 Collimator is an important part of _____ tube.
- Q.18 Define dipole moment.
- Q.19 Write one safety requirement of X ray.
- Q.20 Expand CT.

Section-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 The wavelength range of X-rays is _____.
- Q.12 Write the name of the machine in which magnetic field is used for imaging.

Section-C

Note: Short answer type Questions. Attempt any twelve questions out of fifteen Questions. (12x5=60)

- Q.21 Write a short note the A Scan mode of USG.
- Q.22 Write a short note on the NMR coils.
- Q.23 Draw the block diagram of X ray machine.
- Q.24 Describe angiography is a short note.
- Q.25 Explain the 1st generation of CT in a short note.
- Q.26 Write a short note on doppler principle.
- Q.27 Draw the labelled block diagram of X ray tube.
- Q.28 Write a short note on the patient does of CT.
- Q.29 Explain any one transducer used in ultrasound imaging in a short note.