

- Q.25 Explain image intensifier in a short note.
- Q.26 Explain the coherent scattering in short note.
- Q.27 Write a short note on the permanent magnets used in the MRI.
- Q.28 Write a short note on the transducer used in the USG.
- Q.29 Draw a neat and clean block diagram of CT.
- Q.30 Explain the biological effects of ionizing radiation.
- Q.31 Write a short note on the generation of X rays.
- Q.32 Draw a well labelled block diagram of stationary X ray Tube.
- Q.33 Write five safety requirements in MRI.
- Q.34 Write a short note on the pulse echo technique.
- Q.35 Describe angiography in a short note.

SECTION-D

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

- Q.36 Give brief introduction of Computed Tomography and explain its System Components.
- Q.37 Draw the block diagram of MRI and explain its parts.
- Q.38 Explain conventional X ray radiography with its basic components.

No. of Printed Pages : 4
Roll No.

183253

5th Sem / Med. Eltx **Subject:- Medical Imaging Techniques (MIT)**

Time : 3Hrs. M.M. : 100

SECTION-A

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

- Q.1 _____ is the frequency of sound waves used for diagnostic use
 a) 10MHz b) 10 Hz
 c) 10 kHz d) 100 kHz
- Q.2 The full form of CT is _____
 a) Magnetic Resonance Imaging
 b) Computed Sonography
 c) Ultra Sonography
 d) None
- Q.3 Radiation which is harmful for humans
 a) Sound waves b) Magnetic Waves
 c) Infrared Rays d) X rays
- Q.4 X ray tube is a part of
 a) CT b) MRI
 c) Ventilator d) USG

Q.5 X ray is an example of _____ equipment.

- a) Surgical
- b) Diagnostic
- c) Therapeutic
- d) None of the above

Q.6 _____ is a magnetic material.

- a) Plastic
- b) Wood
- c) Stone
- d) Iron

Q.7 The effect which is used in USG

- a) Photo Effect
- b) Doppler Effect
- c) Magnetic Effect
- d) All of the above

Q.8 NMR coil is a system component of

- a) MRI
- b) Ventilator
- c) Monitor
- d) Blood Cell Counter

Q.9 Tube rating are used for _____

- a) USG
- b) MRI
- c) ECG
- d) X ray

Q.10 _____ is a part of MRI

- a) RF coil
- b) X ray tube
- c) Objective Lens
- d) None of the above

SECTION-B

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

Q.11 Write one use of collimator.

Q.12 Expand NMR.

Q.13 Write the full form of MIT

Q.14 Write the definition of frequency.

Q.15 Write one advantage of rotating X ray Tube.

Q.16 Write name of one part of USG.

Q.17 Name one system component of Gamma Camera.

Q.18 Write one use of mammography.

Q.19 Write one advantage of mobile X ray machine.

Q.20 Write one example of electromagnetic radiation.

SECTION-C

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

Q.21 Define electromagnetic radiation and give three examples.

Q.22 Draw the block diagram of X ray Machine.

Q.23 Explain the principle of MRI machine in a short note.

Q.24 Explain the principle of color doppler.