

- Q.26 A short note on the NMR.
- Q.27 Explain the need of beam collimator in X-Ray.
- Q.28 Explain the working principle of MRI in a short note.
- Q.29 Write five properties of USG.
- Q.30 Explain any one transducer used in ultrasound imaging.
- Q.31 Write a short note on CT Dose.
- Q.32 Write a short note one type of magnet used in MRI.
- Q.33 Write short note on radioactive particles.
- Q.34 Draw a neat and labelled block diagram of MRI.
- Q.35 Write five components of CT.

SECTION-D

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

- Q.36 Generation and detection of ultrasonic waves.
- Q.37 Explain the various generations of CT in detail.
- Q.38 a) Write short note on X ray generators.
b) Write five properties of X-rays.

No. of Printed Pages : 4
Roll No.....

183253

5th Sem / Medical Electronics 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 Which of these are electromagnetic waves.
a) Radio waves b) Visible light
c) Gamma rays d) All of these
- Q.2 Which radiation is harmful for human.
a) X rays b) Magnetic Rays
c) Ultrasonic Rays d) Infrared Rays
- Q.3. Rontgen discovered
a) MRI b) Ventilator
c) X ray d) USG
- Q.4 NMR Coil is a system component of
a) USG b) X ray
c) Ventilator d) MRI
- Q.5 `A scan mode is used in

- a) Ventilator b) USG
c) Gamma Camera d) MRI
- Q.6 CT generate three-dimensional (3-D) images of internal body structures using complex X-ray and computer aided tomographic imaging techniques.
- a) True b) False
- Q.7 USG uses
- a) Magnetic effect b) Doppler effect
c) Photo Effect d) None
- Q.8 “CT” stands for _____?
- a) Ultrasonography
b) Magnetic resonance imaging
c) Computed tomography
d) None of the above
- Q.9 FID stands for Free Induction Decay
- a) Yes b) No
- Q.10 What does “MRI” stand for
- a) Magneto-Ray Idometry
b) Medical Radiometry Instrument
c) Magnetic Resonance Imaging
d) Maximal Radiology Imaging

SECTION-B

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

- Q.11 Name one component of Gamma Camera.
- Q.12 Write full form of NMR.
- Q.13 The frequency of USG is _____.
- Q.14 Write one example of transducer.
- Q.15 Write one example of radioactive particle.
- Q.16 Write one use of X-ray.
- Q.17 Write one component of X-Rays.
- Q.18 Write one use of a gamma camera.
- Q.19 Write one mode of scanning in USG.
- Q.20 Write one safety requirement for X-Ray

SECTION-C

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

- Q.21 Draw the labelled block diagram of X-Ray.
- Q.22 Write five uses of MRI.
- Q.23 Write short note on B mode of USG.
- Q.24 Write short note on line focus principle.
- Q.25 A short note on linear transducer on USG.