

- Q.29 Explain the superconductive magnet in a short note.
 Q.30 Write a short note on the conventional X ray radiography.
 Q.31 Write a short note on the USG.
 Q.32 Write five properties of X rays.
 Q.33 Write a short note on the Larmer frequency.
 Q.34 Explain patient dose in CT scanners in a short note.
 Q.35 Write short note on mammography.

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
 Q.36 Draw the block diagram of X ray machine and explain its parts.
 Q.37 Write the definition of transducer and explain the transducer used in USG.
 Q.38 Explain gamma camera in detail.

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5th Sem. / Medical Electronics

Subject:- Medical Imaging Techniques (MIT)

Time : 3Hrs.

M.M. : 100

SECTION-A

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

- Q.1 In X ray tube the electrons from the cathode strike at _____
 a) Non metal b) anode
 c) Fluorescent Screen d) None of the above
- Q.2 NMR coil is a system component of
 a) MRI b) Ventilator
 c) Monitor d) ECG
- Q.3 Magnetic field is used for imaging in
 a) X ray b) USG
 c) Mammography d) MRI
- Q.4 _____ are interaction between X ray and matter
 a) Coherent Scattering b) Photoelectric Effect
 c) Compton Scattering d) All of the above

- Q.5 Image intensifiers convert low energy _____ into visible light image in
- a) Magnetic Rays b) Sound waves
c) X-rays d) None
- Q.6 RF waves are used in
- a) X rays b) MRI
c) ECG d) USG
- Q.7 Which one of these is not a medical imaging equipment
- a) MRI b) USB
c) Ventilator d) X ray
- Q.8 Which one of these is not a radioactive particle
- a) Plutonium b) Uranium
c) Thorium d) Wood
- Q.9 Doppler effect is used in
- a) USG b) MRI
c) X ray d) None of the above
- Q.10 _____ is the name of first gamma camera
- a) Hal Camera b) West Camera
c) Muller Camera d) Anger Camera

SECTION-B

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

- Q.11 Write one use of X ray machine.

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- Q.12 Write name of one part of gamma Camera.
- Q.13 Write one safety requirement of MRI machine.
- Q.14 Write one part of X ray machine.
- Q.15 Write the definition of angular momentum.
- Q.16 Write one property of ultrasound.
- Q.17 Write one difference between stationary and rotating x ray tube.
- Q.18 Expand MLI.
- Q.19 Write name of one component of fluoroscopy.
- Q.20 Write one advantage of image intensifiers.

SECTION-C

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

- Q.21 Write a short note on the doppler effect.
- Q.22 Explain Compton scattering in a short.
- Q.23 Write a short note on the X ray films.
- Q.24 Summarize the angiography procedure in a short note.
- Q.25 Write a short note on the introduction of computed tomography.
- Q.26 Explain the x ray generator in a short note.
- Q.27 Explain A mode of scanning in USG in a short note.
- Q.28 Draw the block diagram of rotating anode type X ray tube.

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