

VINAYAKA MISSION'S RESEARCH FOUNDATION, SALEM
B.Sc(RADIOGRAPHY) DEGREE EXAMINATIONS -February 2020
SECOND YEAR
MEDICAL IMAGING TECHNOLOGY

Three Hours

Maximum: 75 marks

SECTION - A

I. Choose the Best Answer :**(10 x 1 = 10)**

1. Gradual decrease in x-ray beam intensity as it passes through material is called
A. Attenuation B. Decay C. Radioactivity D. imaging
2. Contrast media consist of elements with
A. lower atomic number B. higher atomic number C. Metalloids D. inert gases
3. What is the principle of fluoroscopy?
A. Radiation B. Scintillation C. Fluorescence D. Phosphorescence
4. CT generates images in
A. Perpendicular to the axis of rotation of the X-ray tube
B. Parallel to the axis of rotation of the X-ray tube
C. 45 deg axis of rotation of the X-ray tube
D. Both A& C
5. Brightness mode in Ultrasound image display is
A. Two Dimensional B. Three Dimensional
C. One –Dimensional D. All is possible
6. The patient exposure is proportional to
A. mAs B. Square of the distance from the focal spot
C. KVp D. mGy
7. Most commonly used material in Diagnostic Radiology
A. Al & Cu B. Al & Mg C. Al & Mn D. Al only
8. Function of the grid to
A. Absorb scatter radiation B. Transmit all primary radiation
C. Both above D. None of the above
9. The disadvantages of moving grid are
A. Exposure time is longer B. Object film distance is increased
C. Blurring of the film D. All the above
10. Grids are usually used in
A. Fatty person B. Thin person
C. Children D. Pregnant women

II. Write Short Answers on any FIVE of the following:**(5 x 5 = 25)**

11. Short notes: Components of Radiographic film.
12. Write the properties of alpha radiation.
13. Explain the basic principle of CT.

(p.t.o)

--(2)--

14. Explain third & fourth generation of scanners.
15. Different modes of Ultrasound image.
16. Write about Echo display modes.
17. Explain about double and single film.

III. Write Short Essays on any TWO of the following:

(2 x 10 = 20)

18. Write an essay about types & construction of x-ray film
19. Intensifying screens.
20. Conventional screens Vs Rare –Earth screens.
21. Interventional radiography.

IV. Write Essays on any ONE of the following:

(1 x 20 = 20)

22. Explain working principle of MRI and its uses advantages and disadvantages?
23. Explain radiation detector and its different types?

(S.No.M22461)

