

**VINAYAKA MISSION'S RESEARCH FOUNDATION, SALEM
(Deemed to be University)**

**B.Sc(ALLIED HEALTH SCIENCES) & M.Sc(INTEGRATED PROGRAMS
IN CARDIAC TECHNOLOGY) DEGREE EXAMINATIONS - August 2019
First Year**

Three Hours

Maximum: 75 marks

SECTION - A

I. Choose the Best Answer :

(10 x 1 = 10)

1. Energy passing through unit area is
A. intensity of x-ray B. frequency of x-ray C. wavelength of x-ray D. amplitude of x-ray
2. Filtration is a process of removing the unuseful radiation.(ie)
A. by absorbing the high energy photons B. by emitting the high energy photons
C. by absorbing the low energy photons D. by emitting the low energy photons
3. Image intensifier required
A. Digital arithmetic Unit B. Multiformat camera
C. Very high contrast medium D. Both A & B
4. CT is used in industry for the purpose of
A. Non destructive Testing B. Destructive testing
C. Analysing surface of material D. Structure analysis
5. Brightness mode in Ultrasound image display is
A. Two Dimensional B. Three Dimensional
C. One –Dimensional D. All is possible
6. Which colors are used to detect motion in color Doppler?
A. Blue & Green B. Blue & Yellow
C. Blue & Red D. Red & Green
7. Most commonly used material in Diagnostic Radiology
A. Al & Cu B. Al & Mg C. Al & Mn D. Al only
8. The effective device to reduce the scattered radiation is
A. Grid B. Glass tube C. Diaphragm D. Cone
9. With high grid ratio,the exposure dose to the patient is
A. Increased B. Decreased C. Unaffected D. None
10. The general quality of standard of quality are set by the _____
A. AERB B. ACR C. AAPM D. ALL of the above

(p.t.o.)

II. Write Short Answers on any FIVE of the following:

(5 x 5 = 25)

11. Write short notes on types of filters.
12. C-ARM?
13. Dental radiography
14. Define Nuclear medicine
15. Colour Doppler & motion Doppler
16. Difference between first and second generation of scanners.
17. Short notes on production of ultrasound.

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

(2 x 10 = 20)

18. Define CT principle & numbers. Give its?
19. Factors affecting scatter radiation?
20. Explain the quality assurance in MRI & Ultra Sound Scan?
21. Explain working principle of Gas filled detector and its uses

IV. Write Essays on any ONE of the following:

(1 x 20 = 20)

22. Define ultra sound and its different types of display modes
23. Write in detail about principle of C-ARM and its uses, advantages and disadvantages?

(Sl.No.M21732)

