

Register No.:

**878**

**April 2024**

*Time – Three hours*  
(Maximum Marks: 100)

- [N.B. 1. Answer all questions under Part-A. Each question carries 3 marks.  
2. Answer all the questions either (A) or (B) in Part-B. Each question carries 14 marks.]

PART – A

1. What are medical X-rays?
2. What is central ray technique?
3. Define fluoroscopy.
4. What is orthophantomography?
5. Mention some recent advancement techniques in mammography.
6. What are the exposure factors during mammogram imaging?
7. Write the basic principle of computed tomography.
8. List any three clinical applications of CT scan techniques.
9. What is collimator?
10. What are CT simulators?

PART – B

11. (a) Explain the 2D X-ray imaging techniques with neat sketch. Also list its applications.

(Or)

- (b) Discuss about the preparation and position of patient as well as cassette for ward radiography.

12. (a) Write short notes on:  
(i) Selective Angiogram  
(ii) Venogram

(Or)

- (b) Discuss about the various dental imaging techniques.

13. (a) (i) Discuss the role of X-rays in mammography.  
(ii) Explain about sonomammography.

(Or)

- (b) (i) Discuss about the patient preparation for mammogram imaging. (10)  
(ii) List the advantages and limitations of mammogram. (4)

14. (a) Explain about the imaging techniques and protocols for various parts of the body.

(Or)

- (b) Explain about CT angiography with neat sketch.

15. (a) Discuss about Tele - Cobalt machine with necessary diagrams.

(Or)

- (b) Explain the working principle of brachytherapy machine.

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