

Register No.:

**644**

**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. List some international regulatory bodies for safety and standards.
2. What is time - distance and shielding?
3. Define ionization.
4. What is radiation risk?
5. What is NABH?
6. What is focal spot size?
7. What is field radiography?
8. List the role of RSO.
9. What is decontamination report?
10. List the uses of radiography sources.

[Turn over.....

PART – B

11. (a) Discuss the responsibilities of licenses, registrants and enforcement of regulatory requirements.

(Or)

- (b) Write short notes on: (5+5+4)

- (i) Personnel Dosimeters
- (ii) TLD
- (iii) ALARA

12. (a) (i) Discuss about the excitation and free radical formation.  
(ii) Explain the action of radiation on cell.

(Or)

- (b) Discuss about the acute exposure and chronic exposure of radiation.

13. (a) Explain the aspects of QA programme. List its benefits in imaging department.

(Or)

- (b) Write short notes on:

- (i) CT dose modulation
- (ii) Patient dose management

14. (a) Write short notes on:

- (i) Crawler equipment
- (ii) Accelerator equipment

(Or)

- (b) Explain the responsibilities of radiography contract awarding agency.

15. (a) Explain the procurement criteria of radiography sources.

(Or)

- (b) (i) Discuss about emergency response plan and preparedness.  
(ii) Discuss about the safe custody of radiography sources and radioactive material.

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