

Question Paper

Exam Date & Time: 08-Jan-2025 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FOURTH SEMESTER B.Sc. MIT DEGREE EXAMINATION - JANUARY 2025
SUBJECT: MIT2201 - RADIATION SAFETY IN RADIO DIAGNOSIS
(2020 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

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| 1) | Illustrate and explain acute radiation syndrome. | (20) |
| 2) | Explain the construction, working, advantages and disadvantages of personnel monitoring devices. | (20) |
| 3) | Explain ionisation chamber. | (10) |
| 4) | Describe the construction and working of a Film badge. | (10) |
| 5A) | Explain the need of radiation protection. | (5) |
| 5B) | Explain somatic and genetic effects of radiation. | (5) |
| 5C) | Explain the technical protective consideration in fluoroscopy. | (5) |
| 5D) | Explain time, Distance & Shielding principle of radiation protection. | (5) |
| 5E) | Explain the dose limits for occupational workers, general public, comforters and trainees. | (5) |
| 5F) | Explain the AERB guidelines in radiation protection. | (5) |
| 6A) | List the radiation protective devices in radiography. | (2) |
| 6B) | What are direct and indirect actions of radiation? | (2) |
| 6C) | Define work load and occupancy factor. | (2) |
| 6D) | What is ADG in mammography? | (2) |
| 6E) | Define radiation protection. | (2) |

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