

QP CODE: 304018

Reg. No.....

**Third Year B.Sc MRT Degree Supplementary Examinations
October 2023
Radiological Protection and Statutory Aspects**

Time: 3 Hours

Max Marks: 100

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

Essays:

(3x10=30)

1. What are the effects of radiation on the cell
2. Describe briefly the protocol for managing radiation accidents
3. With the help of a neat diagram describe the planning of Cobalt-60 radiotherapy installation

Short notes:

(8x5=40)

4. Kerma and absorbed dose
5. Target theory
6. Pocket dosimeter
7. Radiation survey in a tele therapy unit
8. Waste disposal of I-131
9. TREM Card
10. AERB Dose limits for radiation worker and public
11. Exposure rate constant

Answer briefly:

(10x3=30)

12. The dose in air from a portable x-ray machine is 4R/min at 40cm. What will be the dose rate at 80cm
13. Somatic effect
14. Quality assurance of mammography equipment
15. Disposal of radioactive waste
16. Effective dose
17. Thyroid shield
18. Film badge
19. Mean lethal dose
20. Dose- response curve
21. Principles of radiation protection
