

QP CODE: 304018

Reg. No.....

**Third Year B.Sc MRT Degree Regular/Supplementary Examinations
April 2026
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. Radiation protection in diagnostic radiology.
2. Explain in detail about the biological effects of radiation.
3. Describe the planning and installation of Co-60 teletherapy unit.

Short notes:

(8x5=40)

4. RBE and LET.
5. Describe cell cycle.
6. Radiation safety measures during radioactive source transfer.
7. Solid state detectors.
8. QA in gamma camera units.
9. Fractionation in radiotherapy.
10. Installation of brachytherapy unit.
11. Management of spillage of radioiodine.

Answer briefly:

(10x3=30)

12. Dose limits for radiation worker and public.
13. Transport index.
14. Pocket dosimeter.
15. Radiation accidents and injuries in teletherapy.
16. Internal exposure.
17. Farmer chamber and its principle.
18. Lead apron.
19. Therapeutic ratio.
20. Gamma zone monitor.
21. Define exposure and absorbed dose.
