

QP CODE: 302018

Reg. No.....

**Third Year B.Sc MRT Degree Regular/Supplementary Examinations  
April 2023  
Radiotherapy II**

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 is brachytherapy. What are the ideal characteristics of brachytherapy sources. Explain different brachytherapy techniques.
2. Discuss staging of carcinoma tongue (anterior 2/3). Describe radiation techniques to treat carcinoma tongue.
3. Describe radiotherapy techniques of oesophageal carcinoma.

**Short notes:**

**(8x5=40)**

4. ICRU 62
5. Beam modifying devices
6. Total skin electron therapy
7. Inverted Y field
8. Staging of carcinoma breast
9. Thermo Luminescent Dosimeter (TLD)
10. Stereotactic Radiotherapy (SRT)
11. Principles of radioactive source disposal

**Answer briefly:**

**(10x3=30)**

12. Half value layer
13. Spinal cord tolerance
14. CT simulator
15. Imaging techniques used for tumor localisation
16. IMRT (Intensity Modulated Radiation Treatment)
17. Source to Surface Distance (SSD)
18. Use of image registration and fusion in radiotherapy
19. Isocentre in radiotherapy
20. e-LORA
21. Radiation effects on reproductive organs

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