

QP CODE: 303018

Reg. No.....

**Third Year B.Sc MRT Degree Regular/Supplementary Examinations
August 2021**

Radiation Physics 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. Discuss in detail the structure and working of a Co 60 teletherapy unit
2. Describe the modalities of brachytherapy. Give examples for each with Diagrams
3. IMRT

Short notes:

(8x5=40)

4. PDD
5. Remote after loading technique.
6. Field shaping of electron beam.
7. Proton accelerators.
8. Cone beam CT.
9. Permanent implants.
10. Physical and dynamic wedges.
11. Paterson Parker system.

Answer briefly:

(10x3=30)

12. Phantom scatter factor.
13. Draw the decay spectrum of cobalt 60.
14. 4 D CT.
15. Isotopes used in intravascular brachytherapy.
16. Isodose curves.
17. Wedge factor.
18. Cesium 137.
19. Internal shielding in brachytherapy.
20. Define isocentre.
21. DRR
