Third Year B.Sc MRT Degree Regular/Supplementary Examinations August 2019

Radiation Physics II

Time: 3 Hours   Max Marks: 100

- **Answer all questions**
- **Draw diagrams wherever necessary**

Essays: **(3x10=30)**

1. Describe in detail about image verification techniques in EBRT.

2. With neat diagrams explain the functions of a Linac

3. Define PDD and TAR and explain the different parameters influencing them

Short notes: **(8x5=40)**

4. GM Counter

5. SRS and SRT treatment techniques

6. Explain the effect of wedges on a iso-dose curve with diagram.

7. Characteristics of ideal brachytherapy source.

8. Pocket Dosimeter

9. Intra cavitary simulation procedure

10. Shutter mechanism in tele cobalt machine

11. Virtual simulation.

Answer briefly: **(10x3=30)**

12. Integral dose

13. DRR

14. Define PTV.

15. Electron shielding preparation

16. Surface moulds

17. Biological half life

18. Parameters involved in treatment time calculation of 2D SSD technique

19. Phantom

20. PET

21. Dynamic wedge

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