

DIPLOMA IN MEDICAL RADIO THERAPY (DMRT) EXAMINATION
MEDICAL RADIATION PHYSICS AS APPLIED TO RADIO THERAPY

Q.P. Code: 343025

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss various Treatment Verification Methods and its clinical application in the treatment of cancers.
2. What are the field matching techniques available and explain it in detail with reference treatment of Medulloblastoma.

II. Write notes on:

(10 x 7 = 70)

1. Flattening filter and Flattening filter free and its clinical applications.
2. Modes of radioactive decay.
3. Personnel Monitoring Devices and Maximum Permissible Dose.
4. Define: SSD and SAD. Discuss the differences between the two techniques and its clinical applications.
5. What is meant by Secondary Dosimeter? Give an example for secondary dosimeter and discuss in detail.
6. Stochastic and non-stochastic effects of radiation.
7. What are the types of wedge filters? Define wedge angle, hinge angle and wedge transmission factor.
8. What is pair production? Discuss its clinical application.
9. Use of Lasers in Radiotherapy.
10. Radioactive Iodine Ablation.
