

(LQ 1518)

AUGUST 2020  
(MAY 2020 SESSION)

Sub. Code: 3026

**DIPLOMA IN MEDICAL RADIOTHERAPY (DMRT) EXAMINATION**

**GENERAL PRINCIPLES OF RADIOTHERAPY INCLUDING  
RADIO-BIOLOGY AND ONCOLOGY**

*Q.P. Code: 343026*

**Time: Three Hours**

**Maximum: 100 Marks**

**I. Elaborate on:** **(2 x 15 = 30)**

1. Discuss the Biological Basis of fractionation. Compare the various fractionation schedules, and discuss the radiobiological factor targeted in concomitant boost radiotherapy.
2. Discuss molecular pathophysiology of tumor.

**II. Write notes on:** **(10 x 7 = 70)**

1. Discuss management of cystisarcoma phylloides.
2. Discuss the vascular access in cancer treatment.
3. Short notes on radiation response modifiers.
4. Nominal Standard Dose (NSD) and Time Dose Fractionation (TDF).
5. Early and late sequelae of spinal cord irradiation.
6. SAD and SSD technique.
7. Clinical trials in oncology.
8. Oncogenes and tumor suppressor genes.
9. After loading technique in brachytherapy.
10. Pain management in oncology.

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