

**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[AHS 0423]**

**APRIL 2023**

**Sub. Code: 1933**

**B.Sc. RADIOTHERAPY TECHNOLOGY  
SECOND YEAR (Regulations 2014-2015 & 2018-2019 onwards)  
PAPER III – RADIOTHERAPY TECHNIQUES  
*Q.P. Code : 801933***

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Describe in detail about Electron Beam Therapy.
2. Immobilization devices and its role in Radiotherapy.
3. Principles and basics of Chemoradiation.

**II. Write Notes on:**

**(8 x 5 = 40)**

1. Dose Volume Histogram.
2. Percentage depth dose.
3. Isodose curve.
4. CT/MRI in tumor localisation.
5. Linear Energy Transfer.
6. SAD technique.
7. ICRU 62.
8. Intraluminal Brachytherapy in Carcinoma Oesophagus.

**III. Short Answers on:**

**(10 x 3 = 30)**

1. Short course preoperative Radiotherapy in Carcinoma Rectum.
2. Advantages of Intraoperative Radiotherapy.
3. Hyperfractionation.
4. Tumour Registry.
5. Megavoltage cone beam CT.
6. Tissue Air Ratio.
7. High dose rate Brachytherapy.
8. Penumbra.
9. Relative biological effectiveness.
10. Involved field Radiotherapy.

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