



**MBM-5125**

Seat No. \_\_\_\_\_

**M. D. (Branch - XV) Examination**

**April / May - 2018**

**Radiotherapy : Paper - IV**

***(Modern Trends & Recent Advances)***

Time : 3 Hours]

[Total Marks : 100

- Instructions :**
- (1) Write legibly, no marks are given for unreadable material.
  - (2) Figures to the right indicate full marks.
  - (3) Answer to the point.
  - (4) All questions carry equal marks.

- 1 Define Stereotactic Radiosurgery (SRS) and Stereotactic Radiotherapy (SRT). What are the biologic considerations in relation to above. Describe in brief Radiosurgical techniques employed in treatment of tumor. **20**
- 2 What are current issues in normal tissue tolerance. Enumerate 15 sites and their radiation tolerance. **20**
- 3 Enumerate various aspects of radiation treatment planning. Describe its importance on basis of fundamentals of ICRU. **20**
- 4 Attempt both (a) and (b) : **20**
  - (a) Simultaneous integrated boost.
  - (b) Comparison of X-Knife and Gamma Knife.
- 5 Write short notes on any **four** : **20**
  - (a) Unsealed radionuclides.
  - (b) DVH
  - (c) Application of CT imaging in Oncology practice
  - (d) LENT and SOMA scale
  - (e) Gated radiotherapy.