

**PG Degree Regular/Supplementary Examinations in Radiotherapy
(MD) May 2022**

Paper I – Radiation Physics, Radiobiology & Other Basic Sciences

Time: 3 hrs

Max marks:100

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

Essay:

(20)

1. Describe evolution of teletherapy techniques and its impact on tumour control and normal tissue complications.

Short essays:

(8x10=80)

2. List beam modifying devices and explain any two in detail.
3. Compare and contrast LDR versus HDR brachytherapy.
4. Percentage depth dose.
5. Invasion and metastasis.
6. Cell survival curve.
7. Write a note personal monitoring devices and clinical applications.
8. Anatomy of esophagus and its importance for a radiation oncologist.
9. BED.
