

QP Code: 101117

Reg. No.:.....

**PG Degree Regular/Supplementary Examinations in Radiation  
Oncology (MD) July 2023**

**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 Interaction of energy with matter. Illustrate with examples their clinical application.

**Short essays:**

**(8x10=80)**

2. ICRU recommendations regarding brachytherapy in carcinoma cervix.
3. Illustrate 4Rs of radiation with examples.
4. Compare and contrast Telecobalt unit versus linear accelerator.
5. List different ways of measuring radiation absorbed dose and explain any two.
6. SSD versus SAD technique
7. Second cancers following radiation.
8. LET, OER, RBE
9. Radiosensitizers

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