

QP Code: 101117

Reg. No.:.....

**PG Degree Regular/Supplementary Examinations in Radiotherapy
(MD) June 2020**

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. Define brachytherapy. Describe the radiobiological rationale for brachytherapy. What are the differences between HDR and LDR brachytherapy.

Short essays:

(8x10=80)

2. Radiotherapy treatment verification
3. Field Shaping in radiotherapy treatment
4. Cyber knife
5. Electron beam therapy and its advantages
6. Linear energy transfer
7. Occupational and public radiation dose limit
8. Endovascular brachytherapy
9. Re-irradiation in head and cancers
