

**QP Code: 101188**

**Reg. No.:.....**

**P.G. Diploma Regular/Supplementary Examinations in Medical  
Radiotherapy (DMRT) June 2020**

**Paper I – Radiation Physics**

**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 in detail the various SI units relevant to radiotherapy. Describe in detail interaction of ionizing radiation with matter and devices used for measuring radiation dose.

**Short essays:**

**(8x10=80)**

2. Cyber knife
3. FFF radiation (Flattening Filter Free Radiation)
4. Beam modifying devices
5. 4 R's of radiobiology
6. Electron beam
7. Pre-operative radiotherapy
8. Radiation safety and protection in HDR brachytherapy machine
9. Production of X ray in a linear accelerator

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