

QP Code: 101117

Reg. No.:.....

PG Degree Examinations in Radiotherapy (MD) April 2019

Paper I – Radiation Physics, Radiobiology & Other Basic Sciences

Time: 3 hrs

Max marks:100

- *Answer all questions*
- *Draw diagrams wherever necessary*

Essay:

(20)

1. Describe radiotherapy plan evaluation indices. Describe in detail the evaluation of an IMRT plan and a HDR brachytherapy plan with a clinical example for each.

Short essays:

(8x10=80)

2. ICRU 62
3. Hyperthermia - radiobiological basis, clinical applications and techniques
4. LET - biological and clinical implications. Diagrammatic representation of relationship between LET, RBE & OER.
5. LENT and SOMA
6. Hypoxic cell sensitizers
7. Acceptance and commissioning tests of LINAC
8. LQ model and its clinical utility
9. TSET (Total Skin Electron Therapy)
