

RADIOTHERAPY

PAPER – IV

RTH/J/16/41/IV

Time : 3 hours

Max. Marks : 100

Important instructions:

- *Attempt all questions in order.*
- *Each question carries 10 marks.*
- *Read the question carefully and answer to the point neatly and legibly.*
- *Do not leave any blank pages between two answers.*
- *Indicate the question number correctly for the answer in the margin space.*
- *Answer all the parts of a single question together.*
- *Start the answer to a question on a fresh page or leave adequate space between two answers.*
- *Draw table/diagrams/flowcharts wherever appropriate.*

Write short notes on:

1. Isotopes in use for genitorurinary brachytherapy. 10
2. Compare Gamma Knife with X-Knife. 10
3. Enumerate investigation profiles along with tumor markers for lung cancers & ovarian cancer in view of modern therapeutic approach. 5+5
4. Rationale and technique of intraoperative radiation therapy. 4+6
5. Enumerate radioisotopes used for PET scan alongwith their half lives. Provide evidence of usefulness of PET scan in oncological management of cancers. 4+6
6. What are the advantages and disadvantages of fast neutron radiotherapy? Give appropriate clinical examples. 5+5
7. Therapeutic ratio and its clinical significance. 10
8. a) What are tyrosine Kinase inhibitors? 5+5
b) Their clinical application in any one cancer.
9. What is thermoluminescence? What are its clinical and lab applications? 3+7
10. a) Principles of Palliative Care. 6+4
b) Euthanasia: Legal aspects in India.
