



**RADIOTHERAPY**  
PAPER – II

RTH/D/14/41/II

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.

1. What are different therapeutic classes of endocrine manipulation for breast cancer? How will you select a hormonal agent in pre or post menopausal women and why? What is the ideal duration of hormonal therapy in adjuvant setting? 5+4+1
2. Describe the stage-wise incidence of pelvic and para aortic nodal involvement in carcinoma cervix. Discuss the role of para aortic radiation in carcinoma cervix. 5+5
3. What are the indications of brachytherapy for carcinoma prostate? Which radioisotopes are used for permanent prostate implants and what are their dose recommendations? Enumerate the side effects of prostate brachytherapy. 5+3+2
4. Discuss the indications, dose schedule, technique and results of radiation therapy in Wilm's tumor. 2+1+5+2
5. What is Hadron therapy? Discuss the indications and radiobiological basis of Hadron therapy. 2+(3+5)
6. Describe the rationale, methods and clinical results of accelerated fractionation schedules in radiotherapy. 3+3+4
7. Discuss the indications, technique and results of prophylactic cranial irradiation in lung cancer. 3+4+3
8. Discuss the rationale, technique and results of post operative chemoradiation in head and neck cancer. 3+4+3
9. Describe Boron Neutron Capture Therapy. Discuss its advantages, disadvantages and clinical applications. 4+6
10. Define specific activity and list specific activity of commonly used sources in radiotherapy. 3+7

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