

**RADIOTHERAPY**

PAPER-II

RTH/D/18/41/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.

**Write short notes on:**

1. a) Dose schedules for hypofractionated radiotherapy in breast cancer. 3+4+3  
b) Indications and contraindications for hypofractionated RT in breast cancer as per current ASTRO recommendations.  
c) Precautions to be taken while planning hypofractionated RT in breast cancer.
2. a) Indications, methods and dose schedules for brachytherapy in oral tongue cancer. 6+4  
b) Indications and results of post-operative adjuvant radiation therapy in oral cancers.
3. a) Risk classification in testicular germ cell tumours. 5+5  
b) Management options in stage I testicular seminoma.
4. a) Indications & results of radiotherapy in Wilm's tumour. 5+5  
b) Describe the timing, treatment planning and dose schedule of radiotherapy for a 3-year old boy with Stage III Wilm's tumour.
5. a) Describe the types of accelerated hyperfractionation schedules in treatment of head and neck cancers with their rationale. 6+4  
b) What is the evidence regarding benefit of the above approaches in treatment of locally advanced head and neck cancer?
6. a) Treatment options and protocols for a case of NSCLC stage IIIB. 6+4  
b) Discuss the options for targeted therapy in NSCLC stage IIIB.
7. a) What is Intensity Modulated Arc Therapy (IMAT)? 2+3+2+3  
b) Enumerate the currently available systems and treatment units for delivery of IMAT.  
c) What is Tomotherapy?  
d) Enumerate advantages and disadvantages of IMAT and Tomotherapy.

P.T.O.

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| 8.  | a) Management of a patient of small cell lung cancer presenting with Superior Vena Caval Obstruction Syndrome. | 6+4 |
|     | b) Indications, dose schedules and benefit of prophylactic cranial RT in small cell lung cancer.               |     |
| 9.  | a) Risk stratification in prostate cancer.   | 5+5 |
|     | b) Management options in an eighty-year-old male with low risk prostate cancer.                                |     |
| 10. | a) Various motion management techniques in radiation therapy.  | 5+5 |
|     | b) Deep Inspiratory Breath Hold (DIBH) technique   |     |

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