

**RADIO THERAPY**

**PAPER-II**

Time: 3 hours  
Max. Marks:100

RTH/J/20/41/II

**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:**

- a) Molecular profiling of gliomas. 4+6
  - b) Management of glioblastoma multiforme.
- a) Principles of cytotoxic chemotherapy. 6+4
  - b) Norton Simon hypothesis.
- a) Mechanism of action of Nivolumab. 5+5
  - b) Role of immunotherapy in melanoma.
- a) What do you understand with terms Oligoprogression and Oligorecurrence? 4+6
  - b) Role of local therapies in oligo metastatic cancer.
- a) What do you understand by metastatic epidural spinal cord compression (MESCC)? 4+6
  - b) Evidence based treatment of MESCC.
- Enumerate the conditions where radiation therapy is used for benign tumors. What are the likely long term complications? Describe in detail the radiotherapy for Graves ophthalmopathy. 3+2+5
- a) Pathological classification & staging of osteogenic sarcoma. 5+5
  - b) Extracorporeal radiation therapy in osteogenic sarcoma.
- a) Radiotherapy in plasmacytoma. 4+3+3
  - b) Molecular profiling in soft tissue sarcoma.
  - c) Rhabdomyosarcoma: Risk grouping.
- a) Cancer related fatigue. 3+4+3
  - b) Anti-emesis management in cancer.
  - c) Morphine.
- a) Bevacizumab in colon cancer. 5+5
  - b) Drugs and dosage used in various types of Folfox regimens with results.

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