

RADIOTHERAPY

PAPER-III

RTH/D/18/41/III

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) Treatment options and protocols for a localized non-metastatic osteosarcoma of distal femur in a 13-year-old male. 6+4
b) Enumerate techniques of limb sparing surgery in osteosarcoma and mention the contraindications for limb-salvage.
2. In SBRT for liver tumours, discuss the: 3+2+3+2
a) Indications.
b) Dose schedules.
c) Dosimetric constraints.
d) Results.
3. For intracranial germ cell tumours, discuss: 4+6
a) Common sites of tumour location and diagnostic work-up.
b) Treatment options and protocols for germinoma.
4. a) Diagnostic work-up of Diffuse Intra-Pontine Glioma (DIPG). 4+6
b) Treatment protocols and prognosis for DIPG.
5. a) Current molecular classification in medulloblastoma. 4+3+3
b) Risk stratification in medulloblastoma.
c) Enumerate late effects of cranio-spinal RT.
6. a) Anterior resection in treatment of rectal cancer. 3+7
b) Protocols for pre-operative radiation treatment of rectal cancers.
7. a) Endocrine therapy options in hormone receptor positive premenopausal breast cancer. 5+3+2
b) Enumerate the Anti-HER-2 therapies in breast cancer.
c) Dose schedule of Trastuzumab in non-metastatic HER-2 positive breast cancer.

P.T.O.

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8. In metastatic NSCLC: 5+5
a) Outline the diagnostic approach and pathological evaluation.
b) Treatment options for a 40-year old female with metastatic adenocarcinoma of lung with sensitizing EGFR mutation.
9. a) Treatment of anal cancers including chemo and RT dose schedules. 6+4
b) Late effects of pelvic irradiation.
10. Enumerate the indications and dose schedules of RT in: 2+2+2+2+2
a) Pituitary adenoma.
b) Craniopharyngioma.
c) Arterio-venous malformation.
d) Meningioma.
e) Orbital embryonal rhabdomyosarcoma.
