

FINAL EXAM
DECEMBER 2016

NATIONAL BOARD OF EXAMINATIONS

RADIOTHERAPY**PAPER – III**

RTH/D/16/41/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) Name four situations which require modification of doses of anti-neoplastic chemotherapy. 2+(4+4)
b) Indications, mechanism of action & side effects of:
i) Carboplatin
ii) Sorafenib
2. a) What is EGFR? 2+2+6
b) Name the malignancies that are associated with the over-expression of EGFR.
c) Explain the role of EGFR targeting in three common cancers.
3. a) Name the tumours arising from metaphysis and diaphysis. 2+(2+2+2)+2
b) Role of the following imaging in Ewing's sarcoma:
i) Plain X-ray,
ii) MRI scan
iii) PET-CT scan
c) Immunohistochemistry tests in histopathologic diagnosis of Ewing's sarcoma.
4. a) Name the features associated with a known genetic predisposition to breast carcinoma. 2+3+5
b) Enumerate the components of risk/benefit assessment and counseling in breast cancer risk reduction.
c) Define cancer related fatigue, its evaluation and management.
5. a) What are the viral infections associated with CNS lymphoma? 2+4+4
b) Staging work up of CNS lymphoma
c) Evidence for multimodality treatment and its benefit over radiotherapy alone.

P.T.O.

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6. a) What are the non-malignant intracranial lesions treated with radiotherapy? 5+5
b) Radiotherapy technique and dose of thyroid ophthalmopathy.
7. a) A 50 year old lady has a newly diagnosed esophageal cancer extending from 30 to 35cm (GE junction at 40 cm).What is the role of endoscopic ultrasound and PET-CT Scan in this patient? 4+6
b) Treatment algorithm in the management of the patient.
8. Transarterial chemo-embolisation: Selection criteria, indications, contraindications & side effects. 2.5x4
9. a) Role of radiotherapy in small cell carcinoma lung, 4+4+2
b) Technique of radiotherapy and doses in small cell carcinoma lung, and
c) Tolerance doses of organs at risk.
10. a) Partial breast irradiation: Rationale, Techniques & results. 6+4
b) Molecular and genetic characteristics of Glioblastoma Multiforme with regards to:
i) Prognosis
ii) Management
