

RADIOTHERAPY
PAPER – II

RTH/D/17/41/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. In breast cancer radiotherapy, write notes on: 2x5
 - a) Present status of irradiation of axilla
 - b) Partial versus whole breast irradiation
 - c) Hypofractionated versus conventional irradiation
 - d) Prone versus supine patient position
 - e) Electrons versus photons
2. Radiotherapy in carcinoma cervix: 4+3+3
 - a) Elective para-aortic irradiation of lymph nodes: role, dose, portals
 - b) Brachytherapy versus IMRT boost: Evidence
 - c) EBRT portals of pelvic irradiation
3. 3+4+3
 - a) Hemibody irradiation
 - b) Intra-operative radiotherapy
 - c) Photodynamic therapy
4. Describe the radiotherapy volume & portals for irradiation of: 4+3+3
 - a) Carcinoma nasopharynx
 - b) Unilateral maxilla with orbital margin destruction
 - c) Both maxilla with nasal cavity involvement
5. What are the advantages & disadvantages of: 2x5
 - a) Conventional Radiotherapy
 - b) 3-D CRT
 - c) IMRT
 - d) IGRT
 - e) SRT

6. a) Prophylactic cranial irradiation in leukemia 3+3+4
b) Prophylactic cranial irradiation in small cell lung cancer
c) Oophorectomy in premenopausal breast cancer
7. Discuss the effects of radiation on : 4+3+3
a) CNS
b) Kidneys
c) Heart
8. a) Forward planning in radiotherapy 5+5
b) Inverse planning in radiotherapy
9. Discuss recent advances in organ preservation with special reference to: 5+5
a) Head & neck cancers
b) Sarcoma of extremity
10. a) Mention the common brain tumours in: (2+2)+(3+3)
i. Supratentorial region
ii. Infratentorial region
b) Indications of:
i. Whole brain irradiation
ii. Craniospinal irradiation