

RADIOTHERAPY
PAPER – III

RTH/D/17/41/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:

- a) Compare preoperative versus postoperative radiation in locally advanced rectal cancer. 4+4+2
 - b) Compare long versus short course preoperative radiotherapy in rectal cancer.
 - c) Radiotherapy versus chemoradiotherapy in rectal cancer.
- a) Initial diagnostic work up of a suspected multiple myeloma 4+3+3
 - b) Mention major & minor diagnostic and prognostic criteria.
 - c) Management of a solitary plasmacytoma.
- a) What is the role of sealed and unsealed radionuclide sources in cancer management? 2+4+4
 - b) Discuss different altered fractionation schemes and their rationale.
 - c) What are the different types of immobilization devices used in head and neck radiotherapy?
- Write the rationale behind, giving examples: 3+3+4
 - a) Neoadjuvant chemotherapy followed by radiotherapy
 - b) Radiotherapy followed by adjuvant chemotherapy
 - c) Concurrent chemoradiotherapy
- a) What is asymmetric collimation? 4+3+3
 - b) Use of wedges
 - c) Use of tissue compensators
- Management of: 5+5
 - a) Superficial bladder cancer
 - b) Muscle invasive bladder cancer

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| 7. | Role of:
a) EBRT in carcinoma oesophagus
b) Chemoradiotherapy in carcinoma oesophagus
c) Brachytherapy in carcinoma oesophagus | 3+4+3 |
| 8. | Integration of molecular targeted approaches with radiotherapy:
a) Give examples
b) Rationale
c) Clinical trials | 3+3+4 |
| 9. | a) What is the purpose of IGRT? In what way it differs from 2-D RT, 3-D CRT and IMRT?
b) Describe different methods of imaging techniques used for IGRT.
c) KV versus MV imaging. | 4+3+3 |
| 10. | a) Current status of neoadjuvant chemotherapy in carcinoma cervix.
b) What is radical trachelectomy?
c) What basic fundamentals should be taken into consideration while planning a patient for radiotherapy? | 3+3+4 |