

RADIOTHERAPY

PAPER-I

Time: 3 hours

RTH/J/19/41/I

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) Anatomy and lymphatic drainage of testes. Discuss briefly on the imaging modalities to evaluate the lymphatics in testicular cancer. 5+5
b) Role of serum markers in testicular malignancy and its impact on management.
2. a) NCRP - goals and advantages of a Registry program. 6+4
b) HBCR and PBCR.
3. a) Oncotype Dx. 4+6
b) Anti-Her2 agents in management of breast cancers.
4. a) Anatomy & lymphatic drainage of tongue. 6+4
b) Describe the differences in the behavior and management policies of oral and oropharyngeal primaries.
5. a) Describe the different groups and levels of axillary lymph nodes. 5+3+2
b) Enumerate and briefly describe different types of mastectomy.
c) Briefly elaborate on indications for Radiation therapy after mastectomy.
6. a) Describe the steps and criteria of Radiotherapy plan evaluation. 6+4
b) ICRU 50 and ICRU-62.
7. a) Tomotherapy 5+3+2
b) Advantages & disadvantages of KV-CBCT Vs MV-CBCT.
c) Recent advances in image guidance for Radiotherapy.
8. a) Characteristics of Electromagnetic radiation. 6+4
b) Characteristics of Electron beam.
9. a) What are Kaplan Meier plot & Forest plot? 4+4+2
b) What are p value & confidence interval?
c) Hazard ratio.
10. a) Sandwich therapy. 3+3+4
b) Intraluminal therapy.
c) LDR versus HDR Brachytherapy.
