

FINAL EXAM  
JUNE 2018

NATIONAL BOARD OF EXAMINATIONS

## RADIOTHERAPY

## PAPER-II

RTH/J/18/41/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:

- a) Role of radiotherapy in management of Wilms' tumour? 2+6+2
  - b) How does one plan and manage a patient of non-metastatic Wilms' tumour post-surgery?
  - c) What are the side effects of the treatment?
- a) What is the presentation in a case of cancer of the Hypopharynx? 1+1+4+4
  - b) What are the investigations done to come to a diagnosis?
  - c) How does one manage a case of Carcinoma Hypopharynx with post-cricoid extension and with an N3 node?
  - d) How does one plan for conventional radiotherapy and IMRT?
- a) How are testicular tumours classified? 2+2+6
  - b) Staging of testicular tumours.
  - c) Management of a patient with Stage II non-seminomatous germ cell tumour of the testis.
- a) What is the indication of SBRT in lung cancer? 1.5+1.5+5+2
  - b) How does it compare stage for stage with surgery?
  - c) Describe the steps in the planning and execution of the treatment.
  - d) What is the current status of SBRT in lung cancer?
- An 80-year-old lady presented with a left supraclavicular lymph node which on aspiration cytology was an adenocarcinoma. Describe:

  - a) Possible sites of origin of this secondary site of spread.
  - b) List history taking and physical examination points of relevance- explaining what might be the investigative lead of each query / finding.
  - c) Investigations ordered and their rationale.
- a) Enumerate small round cell tumours. 1+3+6
  - b) What is the pathological and immunological basis of diagnosis of small round cell tumours?
  - c) Discuss the diagnosis and management of pelvic rhabdomyosarcoma in children.

P.T.O.

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7. a) Classify tumours that are seen in the orbit? 2+2+6  
b) What is the hypothesis and genetic basis for retinoblastoma?  
c) Describe treatment of various stages of unilateral retinoblastoma.
8. An 80-year-old lady is referred to you with a painless small lump in the outer quadrant of her left breast which on a core biopsy is a ductal adenocarcinoma, ER and PR positive and HER 2 neu negative. 3+2+5  
a) What further will you ask in history and what will you examine and why?  
b) What investigations will you order and why?  
c) Ultrasound abdomen and a subsequent needle cytology shows a solitary liver metastasis - what will be your counselling advice in regard to further investigation and treatment and why?
9. a) What are the goals for the combination of chemotherapy with radiotherapy? 1+1+4+4  
b) What are the two different ways the two modalities can interact?  
c) Describe the radiobiologic concepts that are exploited in combination of radiotherapy and chemotherapy.  
d) What are the mechanisms of interaction between drug and radiation - give examples?
10. a) What is meant by APBI? 1+1+4+4  
b) What is the rationale for APBI?  
c) What are the various ways, including dose schedules, in which APBI is done?  
d) Discuss the clinical evidence in favour of or against APBI.

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