



**RADIOTHERAPY**

**PAPER - I**

RTH/J/14/41/I

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.
1. Draw labeled diagrams of oral cavity and describe pattern of lymphatic drainage of anterior 2/3<sup>rd</sup> tongue cancer. 4+6
  2. Mention pathological classification of ovarian malignancies. Describe salient features of epithelial cancers of ovary. 5+5
  3. What are different phases of clinical trials described? Discuss one randomized clinical trial for head and neck cancer which has made clinical impact. 4+6
  4. Explain pros & cons of vaccination against carcinoma cervix. Discuss the clinical trial recently conducted worldwide and evidence available. 3+7
  5. Draw labeled diagram of conventional radiotherapy simulator and discuss functions of conventional radiotherapy simulator. Describe the various features available with modern CT-Simulator. (3+3)+4
  6. Describe maximal permissible dose limits of radiation described by Indian regulatory body. How will you manage a person exposed to 3Gy whole body radiation in Telecobalt area? 5+5
  7. What parameters are checked as daily calibration of a dual energy accelerator with MLC? Discuss the characteristics and use of 12 MeV electron beam. 4+(4+2)
  8. Enumerate beam modifying devices used for radiotherapy machines. Describe in detail types of wedges available in practice. 4+6
  9. Describe briefly various dosage systems of interstitial brachytherapy. Mention the GEC-ESTRO recommendations for intracavitary irradiation for carcinoma cervix. 5+5
  10. How will you plan radiotherapy for intact left breast? Discuss hypofractionation schedule used for carcinoma breast. 5+5