RADIOTHERAPY

PAPER – I

RTH/J/16/41/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.*

Write short notes on:

1. Anatomy of uterine cervix and its adjacent structures as it relates to therapeutic approach in late stage cervical cancer.   10

2. Classify endometrial tumours with regards to prognosis and therapeutic outcomes.   5+5

3. a) What is radiation tolerance of lung?   3+7
    b) Acute and late effects of radiation therapy on lung tissue.

4. a) How will you meet the statistical requirements of number of patients in your research project?   5+5
    b) How does confidence interval change 'the sample size'?

5. a) Enumerate quality control tests done on a Linear Accelerator.   3+7
    b) How would you determine field symmetry and beam flatness on a linear accelerator?

6. Uncertainties that may be encountered in planning of a patient undergoing a course of radiation.   10

7. Histopathological classification of Non-Hodgkin's Lymphoma.   10

8. Classify bone tumours with special reference to its immunohistochemistry.   10

9. a) What is the radiation tolerance of ovary and testes?   4+6
    b) Fertility preservation in overall oncologic management.

10. Various levels of evidence, with one example from medical literature for each level of evidence.   10

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