MEDICAL ONCOLOGY

PAPER – I

MED.ONCO/D/16/17/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. Differences between a cancer cell and a normal cell as regards to: 2+2+6
   a) Physical differences.
   b) Biochemical differences.
   c) Genetic differences

2. a) Role of genes involved in apoptosis and programmed death-1 pathway. (3+3)+4
   b) Illustrate your answer with use of programmed death inhibitors in lung cancer.

3. Role of aromatase inhibition in breast cancer: 2+4+(2+2)
   a) Its endocrine pathway.
   b) Clinical use of aromatase inhibitors.
   c) Adverse effects and mechanism of resistance.

4. a) Tyrosine kinase pathway and its inhibitors. 5+5
   b) Compare Imatinib, Nilotinib and Dasatinib in treatment of chronic myeloid leukemia as regards to remission and adverse effects.

5. A 25 year old lady has been diagnosed to have breast cancer. Her mother also had breast cancer at age of 45 years. 3+3+4
   a) How will you take complete family history?
   b) How will you counsel regarding risk in other siblings?
   c) What medical and surgical measures can be taken to prevent in other siblings at risk of breast cancer?

6. Role of immunohistochemistry in the diagnosis of head and neck tumour in children: 3+2+5
   a) Causes of head and neck tumors with differential diagnosis in a child.
   b) Name the immunohistochemical stains.
   c) Interpretation of IHC (immunohistochemical) stains in arriving at the diagnosis.

P.T.O.

POSSESSION / USE OF CELL PHONES OR ANY SUCH ELECTRONIC GADGETS IS NOT PERMITTED INSIDE THE EXAMINATION HALL.

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7. Biologic basis of radiation therapy: 2+4+4
   a) Relevant effects of radiation including DNA damage.
   b) Immediate and late toxicities on various systems.
   c) Radiosensitivity, resistance concepts and their clinical significance.

8. Compare cisplatin, carboplatin and oxaliplatin as regards to mechanism of action, pharmacology and toxicity. 3+3+4

9. Screening for cervical cancer: 2+4+4
   a) Name the methods.
   b) Merits and short comings in the above methods.
   c) Current status of HPV vaccine.

10. Triple negative breast cancer: 2+3+3+2
   a) Definition
   b) Salient features
   c) Treatment
   d) Outcome

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