

MEDICAL ONCOLOGY

PAPER-I

Time: 3 hours
Max. Marks:100

MED.ONCO/D/20/17/I

Important Instructions:

- *You are provided with 5 answer sheet booklets. Each individual answer sheet booklet consists of 10 pages excluding the covering jackets.*
- *Answers to all the questions must be attempted within these 5 answer sheet booklets which must be later tagged together at the end of the exam.*
- *No additional supplementary answer sheet booklet will be provided.*
- *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) Viruses and cancer. 3+4+3
b) Drug resistance mechanisms in cancer.
c) Chemotherapy related cancers.
2. a) Hereditary colon rectal cancer. 3+4+3
b) Microsatellite instability.
c) KRAS and BRAF mutation in colon cancer.
3. a) Antibody-drug conjugates. 3+4+3
b) Proteasome Inhibitors in cancer therapeutics.
c) mTOR inhibitors in treatment of cancer.
4. a) Enumerate tyrosine kinase inhibitors. 3+4+3
b) Tyrosine kinase inhibitors in lung cancer.
c) Tyrosine kinase inhibitors in renal cell carcinoma.
5. a) Principles of Radiotherapy. 3+4+3
b) Newer techniques of radiotherapy in CNS tumours.
c) Radiation sensitizer.
6. a) Cell cycle. 3+4+3
b) List CDK inhibitors.
c) Indication of CDK inhibitors in breast cancer.
7. a) Immune check point inhibitors. 3+4+3
b) Immune check point inhibitors toxicities.
c) Immune check point inhibitors in metastatic melanoma.
8. a) NGS and its utility in cancer management. 3+4+3
b) Flow Cytometry in leukemia management.
c) Cytogenetics in cancer.

P.T.O.

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| 9. | a) Mutations in cancer pathogenesis.
b) Tumor mutation burden.
c) Role of MMR and MSI in cancer management. | 3+4+3 |
| 10. | a) Image Guider Radiotherapy.
b) Cyber Knife.
c) Cobalt Radiotherapy. | 3+4+3 |
