

MEDICAL ONCOLOGY

PAPER-I

MEDONCO/J/18/17/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:

- a) List TTF-1 positive tumours. 2+3+5
 - b) List first, second and third generation tyrosine kinase inhibitors in non-small cell lung cancer.
 - c) Briefly compare their pharmacology and adverse reactions.
- a) Enumerate the steps involved in conducting a meta-analysis. 3+2+5
 - b) What is a Forest plot? Mention the key features in its interpretation.
 - c) Compare weekly versus three weekly cisplatin based chemotherapy in the treatment of locally advanced head and neck cancer.
- A 25-year-old male diagnosed as osteosarcoma was started on neoadjuvant chemotherapy. He developed seizures on chemotherapy. 3+4+3

 - a) Enumerate the differential diagnosis for the seizures.
 - b) How will you manage Ifosfamide encephalopathy?
 - c) Mechanism of MESNA in preventing Ifosfamide toxicity.
- a) Briefly describe various techniques used for HLA typing. 4+2+4
 - b) List various regimens used for myeloablative and nonmyeloablative allogeneic stem cell transplantation.
 - c) What long term toxicities can be encountered in a 40-year-old male who has received allogeneic-stem cell transplant from his elder sister?
- a) List metabolic emergencies encountered in children with leukemia/lymphoma. 3+3+4
 - b) Mention criteria for diagnosis of tumour lysis syndrome.
 - c) Compare allopurinol versus Rasburicase as regards to mechanism of action, efficacy and side effects.
- a) What are the indications of stereotactic radiosurgery (SRS) in brain metastasis? 3+3+4
 - b) Write the complications associated with SRS.
 - c) Describe a prognostic tool which can be used in the assessment of patients with brain metastasis.

P.T.O.

7. a) Schematically represent the events that occur in a cell cycle. 3+4+3
b) List the approved CDK inhibitors in breast cancer and their side effects.
c) What is the therapeutic benefit of adding CDK inhibitors with hormone therapy in metastatic breast cancer with evidence?
8. a) Mention the steps involved in cancer immunoediting. 3+4+3
b) List the adverse effects of CTLA-4 inhibitors and their management.
c) Role of CTLA-4 inhibitors in the management of malignant melanoma.
9. a) List 5 common oncoviruses and their associated malignancy. 3+3+4
b) Describe the molecular pathogenesis of HPV (Human Papilloma Virus) infection resulting in cervical cancer.
c) Enumerate the Guidelines for using HPV Vaccine.
10. a) Physiology of nausea/vomiting. 3+2+2+3
b) How do you grade it?
c) List cytotoxic drugs associated with moderate to severe nausea/vomiting.
d) Outline treatment of cisplatin associated nausea/vomiting.
