

D.M. Examination

Branch IV : Medical Oncology (Applied Basic Sciences)

Paper-I

Date : 10-12-2018, Monday]

[Max. Marks : 100

[Time : 3 Hours

- Instructions :** (1) Answer to the point.
(2) Figure to the right indicates marks.
(3) Draw diagrams wherever necessary.
(4) Write legibly.

1. As regards to epidemiology of cancers in India: list five common cancers in men and women each. Mention risk factors for one most common cancer in men and women each. Briefly discuss potential strategies for screening and prevention in any one of these five cancers with rationale. 20
 2. Compare first generation TKI vs 2nd generation TKI as upfront treatment in de novo chronic myeloid leukemia (CML) as regards to pharmacology, mechanism and toxicities. 20
 3. Discuss briefly histological (morphological) and molecular classification for breast cancer. List various prognostic factors. Describe protocol used for Her-2 –Neu gene testing at your institute. 20
 4. Discuss merits and demerits of various imaging techniques for right tibia bone tumour in a 17 year old girl. How will you establish diagnosis? Mention toxicities of radiation treatment in such a patient. 20
 5. Write Short notes 5x4=20
 - a. Risk reduction surgery for BRCA1 and BRCA2 mutation carriers
 - b. Pathogenesis of cancer cachexia
 - c. TNM staging for Non small cell lung cancer
 - d. ELISA technique and its applications in medical oncology
-

D.M. Examination**Branch IV : Medical Oncology (Speciality)****Paper-II****Date : 12-12-2018, Wednesday]****[Max. Marks : 100****[Time : 3 Hours**

- Instructions :** (1) Answer to the point.
(2) Figure to the right indicates marks.
(3) Draw diagrams wherever necessary.
(4) Write legibly.

1. Regarding Lung cancer: (i) briefly discuss genetics of lung cancer in India. (ii) Methods used for testing EGFR mutation and (iii) management of adenocarcinoma of lung in a 50 year old lady with asymptomatic single brain metastasis. 20
 2. What is your antibiotics protocol for a 50 year old lady who develops febrile neutropenia while on FAC chemotherapy for breast cancer? Discuss critically basis for this choice of antibiotics. How do you treat multidrug resistant infection (blood culture +ve) in a 20 year old male with AML on 3:7 induction chemotherapy? 20
 3. List various malignancies associated with human papilloma (HPV) virus infection. Briefly , discuss management of locally advanced cancer of base of tongue. List toxicities encountered during this treatment. 20
 4. List various cytogenetic/FISH abnormalities encountered in soft tissue sarcomas (STS). How this knowledge has helped in their management? Discuss role of chemotherapy and novel agents in the treatment of metastatic synovial sarcoma. 20
 5. Write Short notes 5x4=20
 - a) Chemotherapy and small molecules in the management of metastatic pancreatic cancer
 - b) Targeted therapy for thyroid cancer
 - c) Evaluation of a case of left testicular mass in a 20 year old male of 2 weeks duration.
 - d) Treatment plan for a 70 year old, asymptomatic man with prostate cancer
-

D.M. Examination
Branch IV : Medical Oncology (Speciality)
Paper-III

Date : 14-12-2018, Friday]

[Max. Marks : 100

[Time : 3 Hours

- Instructions :** (1) Answer to the point.
(2) Figure to the right indicates marks.
(3) Draw diagrams wherever necessary.
(4) Write legibly.

1. List various techniques used for assessment of minimal residual disease (MRD) in childhood acute lymphoblastic leukemia (ALL). Briefly discuss principle of real time quantitative PCR. How does presence or absence of MRD affect your treatment decisions at the end of induction in child hood ALL? 20

 2. As regards to Chronic myeloproliferative disorders : discuss clinical and molecular classification for primary myelofibrosis (PMF) . How will you calculate international staging score for PMF. Outline treatment of high risk PMF in a 50 year old lady. 20

 3. List standard indications of stem cell transplantation for paediatric age group (1-18 years) patients. Critically discuss choice of conditioning regimen (with rationale) for acute leukemia. What could be short term and long term complications of these regimens? 20

 4. Discuss role of infective agents in the etiology of diffuse B large cell NHL. What is Immunohistochemistry (IHC) protocol for diagnostic evaluation of NHL-DLBCL at your institute?. Outline treatment of testicular DLBCL with CNS involvement. 20

 5. Write Short notes 5x4=20
 - a. Targeted Therapy in Non-M3 AML
 - b. Treatment free remission in CML
 - c. Venetoclax
 - d. Approach to a case of persistent thrombocytopenia on day +60 post allogeneic stem cell transplant in a case of acute leukemia
-

D.M. Examination

Branch IV : Medical Oncology Paper-IV
(Modern Trends & Advances)

Date : 17-12-2018, Monday]

[Max. Marks : 100

[Time : 3 Hours

- Instructions :** (1) Answer to the point.
(2) Figure to the right indicates marks.
(3) Draw diagrams wherever necessary.
(4) Write legibly.

1. Briefly discuss principle of liquid biopsy and its role in cancer diagnosis and management. 20
 2. What is principle of weekly over 3 weekly chemotherapy schedule? List various malignancies where weekly versus 3 weekly chemotherapy schedules has been tried. Briefly discuss results of such studies for epithelial ovarian cancer. 20
 3. How will you assess response in patients with metastatic renal cell cancer (RCC). Discuss pros and cons of choosing progression free and overall survival as end points in clinical trials for metastatic RCC. 20
 4. Define high risk myeloma. How does a malignant plasma cell differ from a normal plasma cell immunophenotypically ?. Compare daratumumab and elotuzumab ~~as~~ regards to mechanism and toxicity. 20
 5. Short notes on 5x4=20
 - a. TAILORx Trial
 - b. Aspirin as maintenance therapy for Breast and colon cancer.
 - c. Therapeutic drug monitoring in medical oncology
 - d. HIPEC (Hyperthermic intraperitoneal chemotherapy in ovarian cancer) – versus Intraperitoneal chemotherapy for advanced ovarian cancer
-