

**Instructions:**

**All Questions are compulsory  
Draw neat and labeled diagram  
wherever necessary**

- Q-1 Write the following 14**
- (i) Write in brief about different types of cancer. 7
- (ii) Explain the role of chemotherapy used as treatment for cancer patients. 7
- OR**
- (i) Distinguish between sporadic cancer and hereditary cancer. Explain in detail about Hereditary breast and ovarian cancer syndrome. 7
- (ii) Write a note about radiotherapy for cancer patients. 7
- Q-2 Write the following 14**
- (i) Write the difference between primary cancer, secondary cancer and second primary cancers. Describe the carcinogenic pathways responsible for the development of second primary cancer. 7
- (ii) Explain cryosurgery and laser therapy used for cancer patients. 7
- OR**
- (i) Write a note on immune suppression related malignancies. 7
- (ii) Explain on hormones therapy for cancer patients. 7
- Q-3 Write the following 14**
- (i) Describe lung cancer diagnosis based on marker expression. 7
- (ii) Write a brief note on clinical staging of cancer. 7
- OR**
- (i) Describe normal hematopoiesis. How acute lymphoblastic leukemia develops? 7
- (ii) What is the meaning of 'M' in TNM classification? Discuss clinical importance of 'M' status in TNM classification. 7
- Q-4 Write the following 14**
- (i) What is the TNM staging of breast cancer? 7
- (ii) What is AML? Explain the various subtypes of AML. 7

- (i) Describe chronic myeloid leukemia. 7  
 (ii) Describe residual tumor classification. 7

**Q-5 MCQs (Any seven out of twelve) 14**

- 1 The Roman physician \_\_\_\_\_ translated the Greek term 'carcinus' into 'cancer' in 25 BC- 50 AD.  
 a Morbis Vniversalibus                      b Galen  
 c Celsus    d Hippocrates
- 2 \_\_\_\_\_ is a rare, malignant bone tumor arising from cartilage cells.  
 a Chondrosarcoma                              b Spindle cell sarcoma  
 c Leiomyosarcoma                              d Choriocarcinoma
- 3 Multiple endocrine neoplasia type 2 syndrome is caused by a mutation in a gene called \_\_\_\_\_ .  
 a PTEN    b DKC1  
 c RET    d TERT
- 4 If your doctor suspects that there are problems with your blood, you may undergo a \_\_\_\_\_ biopsy.  
 a Bone marrow                                      b Needle  
 c Endoscopic                                        d Surgical
- 5 Refractory leukemia/lymphoma and myeloma are the cancers that are most commonly treated with \_\_\_\_\_.  
 a Bone transplantation                              b Stem cell transplantation  
 c Kidney transplantation                              d Bone marrow transplantation
- 6 \_\_\_\_\_ is defined as supra normal body temperature.  
 a Hyperthermia                                      b Cryosurgery  
 c Hypothermia                                        d Chemotherapy
- 7 Chondrosarcoma resembles \_\_\_\_\_.  
 a Cartilage cell                                      b Soft tissue  
 c Fibrous tissue                                        d Blood vessels
- 8 \_\_\_\_\_ is the targeted therapy for Non-Hodgkin's lymphoma B cell type.  
 a Gefitinib    b Imatinib  
 c Rituximab    d Trastuzumab
- 9 Hodgkin's lymphoma express \_\_\_\_\_.  
 a CD 3    b CD13  
 c CD19    d CD30

- 10 Variations greater than 1kilobase of DNA is called \_\_\_\_\_.
- |   |     |   |     |
|---|-----|---|-----|
| a | MMR | b | SNP |
| c | MSI | d | CNV |
- 11 Fuhrman score is used in \_\_\_\_\_ cancer.
- |   |          |   |        |
|---|----------|---|--------|
| a | Kidney   | b | Breast |
| c | Prostate | d | Lung   |
- 12 FAB system classifies ALL into \_\_\_\_\_ subtypes.
- |   |      |   |       |
|---|------|---|-------|
| a | Two  | b | Three |
| c | Four | d | Five  |
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