

PATHOLOGY

PAPER – I

Time : 3 hours
Max. Marks : 100

PATH/D/10/32/I

Attempt all questions in order.
Each question carries 10 marks

1. Define & classify cardiomyopathy. Describe morphological features in various types of cardiomyopathies.
2. Classify pleural tumors. Mention their differential diagnosis including immuno-histochemical and ultrastructural features.
3. Describe etiopathogenesis, morphological features and differential diagnosis of Ischaemic Bowel Disease.
4. How will you evaluate core biopsy from a patient suffering with chronic hepatitis? Describe histological features and other investigations for establishing its etiology.
5. Describe pathology of solid aneurysmal bone cyst and its differential diagnosis.
6. Define pseudo-lymphomas. Mention their common sites. Describe pathological , immuno-histochemical and molecular features differentiating pseudolymphomas from malignant lymphomas.
7. Enumerate causes of anovulatory cycle. Describe diagnostic features of polycystic disease of ovary and stromal hyperthecosis.
8. Discuss differential diagnosis of benign verrucous epidermal proliferative disorders.
9. Enumerate leukodystrophies. Describe in brief their pathological features.
10. Discuss in brief the prognostic factors for carcinoma prostate.

PATHOLOGY

PAPER – II

Time : 3 hours

Max. Marks : 100

PATH/D/10/32/II

**Attempt all questions in order.
Each question carries 10 marks**

1. Describe principles of automated analyzers used for coagulation assays and platelet function tests.
2. Describe Gel Card Technique and its application in diagnosis of hematological disorders and transfusion medicine. Comment on its advantages and disadvantages.
3. Describe haematological complications of pregnancy.
4. Describe activation markers, activation pathways and antimicrobial mechanisms of macrophages.
5. Enumerate disorders of iron overload and describe their laboratory diagnosis.
6. Classify causes of myelofibrosis. Describe pathogenesis and differential diagnosis of Idiopathic Myelofibrosis.
7. Describe briefly the complications of massive blood transfusion. What precautions can be taken to prevent the complications?
8. Discuss the molecular basis of beta thalassaemia and genetic counseling.
9. Enumerate indications for bone marrow Trepine Biopsy and describe systematic approach for its evaluation.
10. Describe clinico-pathological syndromes associated with Acute Myeloid Leukemia.

PATHOLOGY

PAPER – III

Time : 3 hours
Max. Marks : 100

PATH/D/10/32/III

**Attempt all questions in order.
Each question carries 10 marks**

Write short notes on:

1. Laboratory diagnosis of malaria parasite including newer diagnostic tests.
2. Methods of evaluation for hemoglobin A1c and its role in the diagnosis and monitoring of diabetes mellitus.
3. Technical pitfalls potentially affecting diagnosis in Immunohistochemistry.
4. Indications, complications of amniotic fluid examination and interpretation of results of laboratory evaluation.
5. General cytological presentation of carcinoma breast and role of ancillary techniques to assess prognosis in it.
6. Newer cytology techniques for diagnosis of carcinoma cervix and detection of HPV infection in the smears.
7. List the cytologic sampling methods for pulmonary pathology. Describe cytology of non-neoplastic lung diseases.
8. Specific morphological changes caused by various viruses.
9. Diagnostic approach to a patient suffering from jaundice.
10. Acute phase reactants.

PATHOLOGY

PAPER – IV

Time : 3 hours
Max. Marks : 100

PATH/D/10/32/IV

**Attempt all question in order.
Each question carries 10 marks**

Write short notes on:

1. Immune responses to tumour antigens and their implications for antigen specific immunotherapy.
2. Consequences of exposure to high doses of ionizing radiation.
3. Telomerase activity in health and disease.
4. Pathophysiology of septic shock.
5. Diagnostic applications of electron microscopy.
6. Legal and ethical issues of pathology practice.
7. Role of mast cells in inflammation.
8. Mechanism of angiogenesis in healing.
9. Define Fragile X Syndrome. Describe lesions caused by it.
10. Mechanism of invasion of extra cellular matrix by tumour cells.