



**All India Institute of Medical Sciences, Kalyani**  
**Second Professional MBBS Examination 2021**

**Time: 3 Hrs.**

**Pathology (Paper-I)**

**Marks: 100**

- Answer all questions.
- Answer the questions in the same serial order strictly.
- Illustrate your answers with well labelled diagram wherever necessary.
- Answer each section in a separate answer book.

**SECTION - A (50 MARKS)**

**Long answer question:**

[1+2+5+2=10]

1. Describe neoplasia under the following headings:
  - a. Define neoplasia.
  - b. What are the differences between carcinoma and sarcoma?
  - c. Describe the mechanism of invasion and metastasis.
  - d. Role of molecular diagnostics and cytogenetics in diagnosis of cancer.

**Write Short notes on:**

[5x5=25]

2. Granulomatous inflammation
3. Differences between apoptosis and necrosis
4. Role of cytokines in inflammation.
5. Mutations
6. Diagnosis of Systemic Lupus Erythematosus (SLE)

**Answer in brief:**

[5x3=15]

7. P53 gene
8. Type III Hypersensitivity reaction
9. Neoplasm in HIV infection
10. Classification of amyloidosis
11. Differences between arterial thrombus and venous thrombus

**SECTION - B (50 MARKS)**

**Long answer question:**

1. Elderly man of 65 years complains of bone pain in spine. Punched out bony lesions are seen in the skull. ESR is very high. [1+2+2+5=10]

- a. What is your provisional diagnosis?
- b. Describe in short pathogenesis of this disease.
- c. What are the clinical features?
- d. How would you confirm your diagnosis by different investigations?

**Write Short notes on:**

[5x5=25]

2. Immune hemolytic anemia
3. Hemophilia
4. Molecular genetics of thalassemia
5. Classic Hodgkin lymphoma
6. Prognostic factors and FAB classification of AML (Acute myeloid leukemia)

**Answer in brief:**

[5x3=15]

7. Differences between leukemia and leukemoid reaction.
8. Diagnosis of hereditary spherocytosis.
9. Differential diagnosis of microcytic hypochromic anemia.
10. Peripheral blood and bone marrow findings in megaloblastic anemia.
11. Pathogenesis of sickle cell anemia.



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**Pathology (Paper-II)**

**Marks: 100**

**INSTRUCTIONS:**

- Answer all questions.
- Answer the questions in the same serial order strictly.
- Illustrate your answers with well labelled diagram wherever necessary.
- Answer each section in a separate answer book.

**SECTION - A (50 MARKS)**

**Long answer question:**

1. A 46-year-old obese male presented with polyuria, polyphagia and polydipsia [1+2+4+3=10]
  - a. What is your provisional diagnosis?
  - b. How would you confirm your diagnosis as per WHO criteria?
  - c. Describe with labelled diagrams depicting the sequential morphological changes in kidney lesion.
  - d. Describe in brief acute metabolic complications of this disease.

**Write Short notes on:**

2. Classification of cervical intraepithelial neoplasia and morphological changes with a labelled diagram. [5]
3. Differences between fibroadenoma and phyllodes tumour of breast. [5]
4. Pathogenesis of rheumatoid arthritis with a flow chart and its diagnosis. [5]
5. Differences between Crohn's disease and ulcerative colitis. [5]
6. Pathogenesis of bronchial asthma with a diagram. [5]
7. Mature and immature teratoma of ovary. [5]
8. Risk factors and complications of peptic ulcer disease. [5]
9. Portal hypertension: Its causes and complications with a labelled diagram. [5]

**SECTION - B (50 MARKS)**

**Long answer question:**

1. A 9-year-old girl abruptly develops malaise, fever, nausea, oliguria and hematuria. [1+2+2+5=10]
  - a. What is your provisional diagnosis?
  - b. What are the aetiological factors and risk factors?
  - c. What is the pathogenesis of this disease?
  - d. Describe the gross and microscopic findings with labelled diagram of the affected organ.

**Write Short notes on:**

2. Origin of complete mole and partial mole with diagram. How would you confirm your diagnosis of hydatidiform mole? [5]
3. Histologic and molecular subtypes of breast cancer. [5]
4. Papillary carcinoma of thyroid. [5]
5. Differences between pyogenic and tuberculous meningitis. [5]
6. Pathogenesis and morphological changes of benign prostatic hyperplasia with a labelled diagram. [5]
7. Multiple endocrine neoplasia. [5]
8. Pathogenesis and morphological changes of osteosarcoma. [5]
9. Classification and pathogenesis of gall stones. [5]