2019 Scheme

Q.P. Code: 213001 **Reg. no.: ……**

Second Professional MBBS Degree Regular/Supplementary Examinations
August 2025
Pathology - Paper I

Time: 3 Hours **Total Marks: 100**

- ***Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers***
- ***Indicate the question number correctly for the answer in the margin space***
- ***Answer all parts of a single question together • Leave sufficient space between answers***
- ***Draw table/diagrams/flow charts wherever necessary***

1. Multiple Choice Questions **(20x1=20)**

The responses for MCQ questions (Q.No. i to Q.No. xx) shall be written in the space provided for answering MCQ questions at page No. 51 of the answer book (the inner portion of the back cover page (PART III)). Responses for MCQs marked in any other part/page of the answer book will not be valued

Question Numbers i – v are Single Response Type

i. Acute inflammation is associated with all the following, **EXCEPT**
   a) Vasodilation c) Changes in vascular flow
   b) edema d) Lymphocytic infiltration

ii. Amyloid protein found in Alzheimer's disease is:
   a) AA b) AL c) Aβ d) Transthyretin

iii. Following Ischemic cell injury decreased level s of ATP leads to all, **EXCEPT**
   a) Anaerobic glycolysis c) Detachment of ribosomes
   b) Intra cellular alkalosis d) Decreased protein synthesis

iv. Which of the following causes is an example for lymphatic oedema
   a) Congestive heart failure c) Nephrotic syndrome
   b) Cirrhosis d) Post irradiation

v. Autosomal recessive disorder is
   a) Phenylketonuria c) Glucose 6 phosphatase deficiency
   b) Hemophilia d) Von Willebrand disease

Question numbers vi - x are multiple response type questions. Read the statements & mark the answers appropriately.

vi. Hypertrophy includes
   1) Increase in Size 2) Increase in cell proteins
   3) Increase in cell organelle 4) Cell type is switched for another
   a) 1, 2, 3 b) 2, 3, 4 c) 3, 4, 1 d) 4, 1, 2

vii. Pale infarct is found in which of the organs
   1) Kidney 2) Heart 3) Spleen 4) Lung
   a) 1, 2, 3 b) 2, 3, 4 c) 3, 4, 1 d) 4, 1, 2

viii. Which of the following CD markers is primarily T cell associated
   1) CD19 2) CD8 3) CD3 4) CD4
   a) 1, 2, 3 b) 2, 3, 4 c) 3, 4, 1 d) 4, 1, 2

ix. Which of the following causes transudative type of pleural effusion
   1) Tuberculosis 2) Cirrhosis 3) Congestive heart failure 4) Nephrotic syndrome
   a) 1, 2, 3 b) 2, 3, 4 c) 3, 4, 1 d) 4, 1, 2

x. Which of the following genes are tumour suppressor gene
   1) APC 2) RET 3) VHL 4) RB
   a) 1, 2, 3 b) 2, 3, 4 c) 3, 4,1 d) 4,1, 2

Question numbers xi – xv consists of two Statements - Assertion (A) and Reason (R). Answer these questions by selecting the appropriate options given below.

a) Both A & R are correct and R is the reason for A **c) A is correct but R is not correct**
b) Both A & R are correct and R is not reason for A **d) A is incorrect and R is correct**

xi. **Assertion:** Ageing is associated with atrophy of brain
   Reason: Atrophy involves increased trophic hormone secretion

xii. **Assertion:** Increased intracellular calcium is associated with cell injury
   Reason: Calcium activates phospholipases

xiii. **Assertion:** Enlargement of heart with the ageing is due to hypertrophy
   Reason: Hypertrophy is seen is organ containing permanent cells

(PTO)

xiv. **Assertion:** Wet gangrene is associated with necrosis
Reason: Action of putrefactive bacteria on necrotic tissue

xv. **Assertion:** Radiation causes gonadal necrosis
Reason: Gonads are highly sensitive organs for radiation injury

Question Numbers xvi– xx are based on case scenarios. Read the statements and mark the answers accordingly.

27-year-old woman presents to the emergency with 24 hours of abdominal pain, fever and vomiting. On examination sharp and localized to the right lower quadrant tenderness with voluntary guarding. Answer the following question about the underlying pathological mechanism

xvi. Role of p - selectin in inflammation
a) Rolling b) Adhesion c) Transmigration d) Homing

xvii. Most important for diapedesis
a) PECAM b) Selectin c) Integrin d) Glycoprotein

xviii. Pain is due to following mediator
a) TNF b) Leucotriene c) Prostaglandin and bradykinin d) Histamine

xix. Macrophages are derived from
a) Plasma cells b) Monocytes c) Neutrophils d) lymphocytes

xx. Which of the following immune cell is unable to phagocytose
a) Neutrophils b) Monocytes c) Eosinophils d) T- lymphocytes

Long Essays **(2x10=20)**

2. A 50-year-old vegan lady presented with progressive weakness, pallor, tingling and numbness of fingers
a) What is your provisional diagnosis
b) Describe the pathology and pathogenesis of this condition
c) How you proceed to confirm your diagnosis (1+5+4)
3. Define Apoptosis. Explain the mechanism of Apoptosis. Enumerate the differences between apoptosis and Necrosis (1+6+3)

Short Essays **(6x6=36)**

4. Various body pigments and their special stains
5. Chemical mediators of inflammation
6. Discuss pathogenesis of septic shock
7. Lab diagnosis of chronic myeloid leukemia
8. Define amyloidosis. Write pathogenesis and classification of amyloidosis
9. Mention tumor markers and their association with cancer

Short Answers **(6x4=24)**

10. Give a brief account of sexually transmitted infectious diseases
11. Discuss informed consent
12. Lead poisoning
13. Pap smear
14. Name the four laboratory tests for coagulation disorders
15. Bombay blood group

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