

**Madhya Pradesh Medical Science University,
Jabalpur**
**MBBS Second Professional Examination April-
2024**
Subject- Pathology
Paper-I (new scheme)

Time: 3:00 Hours

Maximum Marks :100

Instructions:

- a) All questions are compulsory
- b) Draw diagrams wherever necessary
- c) Answers of Questions and Sub-questions must be written strictly according to serial order of question paper.
- d) MCQ has to be answered in theory answer book
- e) Please write MCQ answer neatly and in serial order with black or blue pen in brackets; for example: - 1. (a) 2. (c)
- f) MCQ has to be answered only once, any kind of repetition or cutting or erasing or whitener will be considered as malpractice, such answers will not be counted in marks and action will be taken according to UFM rules of university.
- g) Subjective answer should be answered in up to 30 words per marks. For example, if a question having 2 marks should answered in up to 60 marks.

Q1. Total MCQs: 10

1. CD-95 is a marker of
 - (a) death receptor
 - (b) MHC complex
 - (c) T helper cells
 - (d) NK cells
 2. Major fibril protein in primary amyloidosis
 - (a) AA
 - (b) AL
 - (c) transthyretin
 - (d) procalcitonin
 3. Which is a feature of reversible cell injury
 - (a) nuclear fragmentation
 - (b) loss of membrane integrity
 - (c) increased lysosomal enzyme release
 - (d) cellular swelling
 4. Osmotic fragility is increased in
 - (a) Sickle cell anemia
 - (b) thalassemia
 - (c) hereditary spherocytosis
 - (d) chronic lead poisoning
 5. The stain used for demonstration of reticulocyte is
 - (a) wright stain
 - (b) brilliant cresyl blue
 - (c) alcian blue
 - (d) giemsa stain
 6. What is the primary effect of ROS on cellular components
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- (a) decreased lipid peroxidation
 - (b) increased protein synthesis
 - (c) oxidative damage to DNA
 - (d) enhance membrane stability
7. HLA-B27 is associated with
- (a) ankylosing spondylitis
 - (b) rheumatoid arthritis
 - (c) chronic active hepatitis
 - (d) diabetes
8. What is not associated with DIC
- (a) thrombocytopenia
 - (b) increased PT
 - (c) hyperfibrinogenemia
 - (d) increased FDP
9. Cloud swelling is due to
- (a) accumulation of water intracellularly
 - (b) fat accumulation intracellularly
 - (c) lysosome degeneration
 - (d) glycogen accumulation intracellularly
10. What is the hallmark of acute inflammation
- (a) fibrosis
 - (b) neutrophilic infiltration
 - (c) angiogenesis
 - (d) collagen deposition

Q2. Long Answer Questions 2 x 20 = 40

- a. 58-year-old female met with a road accident, she had multiple fractures which were operated upon and reduced

and fixed. On 5th post operative day, she developed gram negative septicemia. A day later she went into shock.

- i. What type of shock would you classify this as?
 - ii. Discuss in detail, pathogenesis of this shock
 - iii. Classify shock
 - iv. Discuss management and complications of shock
- b. A 2-year-old male child admitted to hospital with complaints of fever, weakness and bleeding. His CBC shows [Hb = 7.5gm%, TLC = 150000/mm³, DLC: Neutrophil = 2% Lymphocyte = 3% Blast cells = 95% Platelets = 4200/mm³] blasts show high N:C ratio, large round nuclei with scanty basophilic cytoplasm containing rod shaped granules
- i. What is your probable diagnosis?
 - ii. Classify the condition
 - iii. Draw labeled diagram of peripheral smear and bone marrow findings
 - iv. Discuss prognosis of condition

Q3. Brief Answer Questions 6 x 05 = 30

- a. Discuss pathogenesis & draw labelled diagram (Peripheral smear) of megaloblastic anaemia
- b. Why P53 gene is known as Guardian of Genome?
- c. What are different morphological patterns of tissue necrosis?
- d. Name the different types of Antibodies which is present in patient of Systemic lupus erythematosus
- e. Discuss role of Complement system in inflammation.

f. What is empathy, what is the role of empathy in patient care?

Q4. Short Answer Questions 10 x 2 = 20

- a. Enumerate different stains used in amyloidosis
- b. Draw labelled diagram of blood peripheral smear of iron deficiency anemia
- c. What are the components of Virchow's triad
- d. Fat necrosis
- e. Name different types of cellular adaptation
- f. Draw a well labelled diagram of tubercular granuloma
- g. Usefulness of tumour markers
- h. M proteins
- i. Rachitic rosary

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