

03/26

The West Bengal University of Health Sciences
MBBS 2nd Professional Examination (New Regulation) January-February, 2026

Subject: Pathology
Paper: I

Full Marks: 100
Time: 3 hours

Attempt all questions. The figures in the margin indicate full marks.

1. a) A 62 year old lady presented with fatigue, weakness, weight loss and severe low back pain. On examination her Hb was 8.1gm/dl. On X-Ray, multiple punched out, lytic lesions were observed in different vertebra. 2+5+8
 - i. What is your provisional diagnosis?
 - ii. How will you confirm your diagnosis?
 - iii. Describe various osseous and extra-osseous pathological changes of the disease.

- b) A 10 year old boy while playing in the ground sustained an injury in the hand with immediate swelling, redness and pain. 2+7+6
 - i. Mention the type of inflammation in this case.
 - ii. Describe the vascular and cellular phenomena causing this inflammatory reaction.
 - iii. Enumerate the chemical mediators and their roles in this type of inflammation.

2. Answer the following:
 - a) Role of cyclins in regulation of cell cycle. 10
 - b) What is cross matching and reverse blood grouping? Write down the the early and late complications of mismatched blood transfusion. 2+2+6
 - c) You have been supplied with 50 ml of "mid-stream catch morning urine sample" in a sterile container from a 40 year old lady complaining of 'blood in urine'. Describe systematic laboratory diagnosis of the sample and write a report. 10

3. Write short notes on the following: 2x5
 - a) Team game and practice of interpersonal communication, team building and leadership in medical practice.
 - b) TNM Staging

4. Explain the following statements: 5x4
 - a) Direct spread is different from metastasis.
 - b) Thrombus differs from clot.
 - c) Dystrophic calcification and metastatic calcification are not same.
 - d) Special stains can be helpful to classify Acute leukemias.
 - e) T lymphocyte count is important in AIDS patient.

5. Choose the correct option for each of the following: 10x1
- i. In a 28 year old male patient with RTA, after 2 days he developed dyspnoea, petachial rash and became unconsciousness. The most probable diagnosis is:
 - a. Air embolism
 - b. Fat embolism
 - c. Thromboembolism
 - d. Myocardial infarction
 - ii. Blood transmission requires donor blood screening of all except:
 - a. Malaria
 - b. HIV
 - c. Dengue
 - d. Hepatitis-B
 - iii. Which of the following test is gold standard to diagnose a case of PNH?
 - a. HAMS test
 - b. Sucrose lysis test
 - c. Flow cytometry
 - d. Bone marrow
 - iv. Which of the following is not true about innate immunity?
 - a. It is present prior to antigenic exposure
 - b. It is relatively non-specific
 - c. Memory
 - d. It is the first line of defense
 - v. Examples of Type II hypersensitivity include:
 - a. Anaphylactic shock
 - b. Polyarteritis nodosa
 - c. Post Streptococcal glomerulonephritis
 - d. Myasthenia gravis
 - vi. Not a feature of apoptosis:
 - a. Cell swelling
 - b. Genetically programmed
 - c. Caspases are activated
 - d. No ensuing inflammation
 - vii. In blood bank anticoagulant used is:
 - a. EDTA
 - b. CPD-A
 - c. Heparin
 - d. Double oxalate
 - viii. Which is the most common type of Amyloidosis in developing countries?
 - a. AA Amyloidosis
 - b. AL Amyloidosis
 - c. ATTR Amyloidosis
 - d. AIAPP Amyloidosis
 - ix. Chemotactic complement components are:
 - a. C3a
 - b. C5a
 - c. Both
 - d. C3b
 - x. Wound contraction is mediated by:
 - a. Epithelial cells
 - b. Myofibroblasts
 - c. Collagen
 - d. Elastin