

The West Bengal University of Health Sciences

1st BMLT December, 2025 - January, 2026 Examination

Subject : General Pathology, Clinical Pathology and Haematology

Time: 3 hrs.

Full Marks: 100

Attempt all questions

1. Tick the correct answer : 20 x 1
- a) Reticulocyte stain is done by :
 i) Crystal Violet. ii) New Methylene Blue. iii) Methyl Violet. iv) Eosin.
- b) A condition in which BH level typically increased is :
 i) Hypothyroidism. ii) Thyrotoxicity.
 iii) Toxic nodular goitre. iv) Solitary thyroid nodule.
- c) The hormone necessary for production of RBC in bone marrow is :
 i) ACTH. ii) Glucocorticoid. iii) Erythropoietin. iv) Mine - ralcorticoid.
- d) ESR test is done by :
 i) Hemocytometer. ii) Colorimeter. iii) Westergren tube. iv) Test tube.
- e) What is needed for hemoglobin electrophoresis?
 i) Hemolysate. ii) Whole blood. iii) Buffy coat. iv) Platelet.
- f) Hemosiderin is stained by :
 i) PAS stain. ii) Methylene blue. iii) Perl Prussian blue. iv) Pap stain.
- g) Macrocytic red blood cells are found in all except :
 i) Megaloblastic anaemia. ii) Iron deficiency anemia. iii) Liver Disease. iv) Both i) & ii).
- h) Demonstration of L.E cell is done from :
 i) Hemolysate. ii) Patient's RBC. iii) Patient's serum. iv) Buffy coat.
- i) Fixative of leishman staining is by :
 i) Ethanol. ii) Methanol. iii) Xylene. iv) Formalin.
- j) Normal Hb% of adult male is :
 i) 13 – 17 gm/dl. ii) 12 – 15 gm/dl. iii) 7 – 10 gm/dl. iv) 18 – 20 gm/dl.
- k) In which anemia MCV, MCH and MCHC remain normal :
 i) Microcytic hypochromic anemia. ii) Macrocytic hypochromic anemia.
 iii) Hemolytic hypochromic anemia. iv) Normocytic hypochromic anemia.
- l) The nucleus of WBC is stained by which dye?
 i) Acidic. ii) Basic. iii) Neutral. iv) All of the above.
- m) The layer obtained in PCV are :
 i) Packed RBC. ii) Plasma. iii) Buffy coat. iv) All of the above.
- n) Detection of Ketone bodies in urine is done by :
 i) Benedict test. ii) Rothera's test. iii) Fouchet's test. iv) Ehrlich's test.
- o) Which of the following is not a reversible cell injury?
 i) Necrosis. ii) Hyperplasia. iii) Hypertrophy. iv) Atrophy.
- p) Protein in urine can be detected by :
 i) Benzidine test. ii) Benedict test. iii) Esbach test. iv) Rothera's test.
- q) Commonest cause of inflammation is :
 i) Physical agent. ii) Chemical agent.
 iii) Microbiological agent. iv) All of the above.

P. T. O.

- r) Nuclear changes in necrosis does not include :
- | | | | |
|--------------|-------------------|--------------------|-----------------|
| i) Pyknosis. | ii) Eosinophilia. | iii) Karyorrhexis. | iv) Karyolysis. |
|--------------|-------------------|--------------------|-----------------|
- s) Toxic granules present are in :
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|----------------|-----------------|----------------|-----------------|
| i) Neutrophil. | ii) Eosinophil. | iii) Basophil. | iv) Lymphocyte. |
|----------------|-----------------|----------------|-----------------|
- t) In which condition the amount of platelet decreases?
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| i) Thrombocytopenic purpura. | ii) Anemia. | iii) Polycythemia. | iv) Basophilia. |
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2. Write very short notes on : 5 x 2

- Biochemical markers of myocardial infraction.
- What are the function of various WBC?
- Name the various types of urinary cast.
- What is Romanowsky stain?.
- Name the pathological variations of ESR.



3. Answer **any six** of the following : 6 x 5

- Cardinal signs of inflammation.
- Benedict test.
- Atrophy.
- Hypothyroidism.
- Leishman staining.
- Laboratory diagnosis of tuberculosis.
- Classification of anemia.
- Rothera's test.

4. Answer **any one** of the following :

- Define necrosis. Briefly describe about various types of necrosis. 2+8
- What is the cause of diabetes? What are the types of diabetes? Describe briefly about laboratory diagnosis of diabetes. 2+3+5

5. Answer **any two** of the following :

- What is the indication of urine analysis? What are the changes that occur when urine is stored in room temperature for long time? Briefly describe about routine chemical examination of urine. 2+3+10
- What is the composition of normal bone marrow? What is the indication of bone marrow examination? What are the various site of bone marrow aspiration? Briefly describe about the procedure of bone marrow aspiration. 2+3+2+8
- What is neoplasia? What is the difference between benign and malignant tumor? Describe briefly about pathological diagnosis of cancer? 1+4+10