

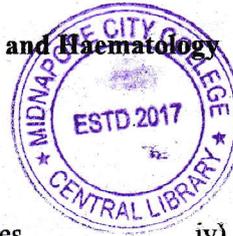
The West Bengal University of Health Sciences
1st BMLT April, 2022 Examination

Subject : General Pathology, Clinical Pathology and Haematology

Time: 3 hrs.

Full Marks: 100

Attempt all questions



20 x 1

1. Tick the correct answer :

- a) Localized area of ischemic necrosis is called :
 i) Emboli formation. ii) Hematoma. iii) Ascites. iv) Infarction.
- b) Cellular adaptation that occurs due to an increase in workload that results in an increase in the number of cells is :
 i) Hypertrophy. ii) Hyperplasia. iii) Atrophy. iv) Dysplasia.
- c) Which of the following anemia is megaloblastic?
 i) Chronic post hemorrhagic anemia. ii) Folic acid deficiency anemia.
 iii) Aplastic anemia. iv) Hemolytic anemia.
- d) Which of the following events in acute inflammation occurs first?
 i) Chemotaxis. ii) Emigration. iii) Phagocytosis. iv) Hemostasis.
- e) The test for checking mean plasma glucose concentration over the previous 8-10 weeks is :
 i) HbA1C. ii) OGTT. iii) Fructosamine test. iv) Both i) & ii).
- f) Megakaryocytes give rise to :
 i) Erythrocytes. ii) Granulocytes. iii) Agranulocytes. iv) Thrombocytes.
- g) The percentage of erythrocytes in blood is known as the _____.
 i) Total RBC count. ii) ESR. iii) Buffy coat. iv) PCV.
- h) Beta-thalassemia is characterized by :
 i) Familial occurrence. ii) Synthesis of abnormal beta-globin chains.
 iii) Increased destruction of maturing erythroblasts in the bone marrow. iv) Both i) & iii).
- i) Carboxyhemoglobin is formed by :
 i) CO. ii) CO₂. iii) HCO₃. iv) HCN.
- j) Hemoglobin electrophoresis is based on :
 i) Molecular weight. ii) Colorimetric properties. iii) Solubility. iv) Charge.
- k) Which of the following is the cause of physiologic leukocytosis?
 i) Pregnancy. ii) Hemorrhage. iii) Fever. iv) Sleep.
- l) Urinary calculi most often consist of :
 i) Potassium. ii) Sodium. iii) Calcium. iv) Uric acid.
- m) Which of the following are types of tourniquets used in specimen collection?
 i) Blood pressure cuff. ii) Pliable strap. iii) Velcro. iv) All of them.
- n) Jaundice in malaria can be classified under :
 i) Haemolytic. ii) Obstructive. iii) Congenital. iv) Hepatocellular.
- o) The production of red blood cell in bone marrow is regulated by :
 i) Calcium. ii) Renin. iii) Erythropoietin. iv) ADH.
- p) Which needle has the largest gauge?
 i) 20 gauge. ii) 19 gauge. iii) 17 gauge. iv) 16 gauge.
- q) Anticoagulants are also called as :
 i) Blood thinner. ii) Blood coagulators. iii) Blood thickener. iv) Vasodialator.
- r) Cessation of urine flow is called as :
 i) Azotemia. ii) Diuresis. iii) Anuria. iv) Dysuria.
- s) Leukopenia may be a result of :
 i) Splenomegaly. ii) COPD. iii) Allergic skin diseases. iv) Tuberculosis.

P.T.O.

- j) Following is the most common cause of thrombocytopenia :
i) Inherited disorders. ii) Myelodysplasia. iii) Drugs. iv) Both i) & ii).

2. Answer the following :

5 x 2

- a) Define hyperplasia.
- b) What do you mean by septic shock?
- c) What is microalbuminuria?
- d) Write down the normal values of T3, T4 and TSH.
- e) What is megaloblastic anemia?



3. Write short notes on *any six* of the following :

6 x 5

- a) Describe the cytoplasmic and nuclear changes in necrosis.
- b) Describe the cardinal signs of inflammation.
- c) What are the characteristic differences between benign and malignant tumor?
- d) Causes of leukaemoid reaction.
- e) Proteinuria.
- f) Describe different types of urinary casts.
- g) Write a short note on metaplasia.
- h) Write a short note on urine sample collection.

4. Answer *any one* of the following :

- a) What are the common causes of thrombocytopenia? Describe how to perform platelet count in laboratory. What is prothrombin time? 4+4+2
- b) What do you mean by AMI? Describe the laboratory diagnosis of AMI. 2+8

5. Answer *any two* of the following :

- a) What are the indications of bone marrow aspiration? Describe the procedure of bone marrow aspiration. What are the sites for bone marrow aspiration? 6+5+4
- b) What is beta thalassemia major? How to diagnose beta thalassemia major in laboratory? Write briefly on hemoglobin electrophoresis. How to estimate PCV in laboratory? 2+5+4+4
- c) What is leukocytosis? What are the causes of leukocytosis? What is neutropenia? What is the WBC count in leukocytosis? What are the different stages of maturation into neutrophil from its precursor? 2+5+2+2+4



The West Bengal University of Health Sciences
1st BMLT Examination, 2022

Subject: PATHOLOGY (General Pathology, Clinical Pathology and Haematology)

Time : 4 hrs

Paper: 101 (Practical)

Max . Marks :100

Attempt Questions : Attempt all questions

SET-A

| Q.No | Statement of Questions | Mark |
|-------------|---|-------------|
| 1. | Practical note book | 5 |
| 2. | Spotting: Identify the object under microscope (Lymphocyte, Neutrophil, Eosinophil Monocyte, RBC) | 5X2 =10 |
| 3. | Perform the following experiments: a) Estimate the haemoglobin in supplied blood sample. Write the principle, procedure and inference. | 20 |
| | b) Determine the PCV of the supplied clinical blood sample. Write the procedure and infer your result. | 15 |
| | c) Perform the physical verification and glucose identification of the supplied urine sample. Write the inference on the sample. | 20 |
| 4. | Viva-voce | 30 |
