



BRAINWARE UNIVERSITY

Term End Examination 2023-2024
Programme – B.Sc.(MLT)-2022/B.Sc.(MLT)-2023
Course Name – Hematology
Course Code - BMLTC201
(Semester II)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

(i) What is the full form of PCV

- a) Percentage of white blood cells in circulating blood b) Percentage of platelets in whole blood
c) Percentage of Cerebrospinal Volume d) None of these

(ii) Which of the following are likely to increase in quantities when the body is under attack from bacteria?

- a) Erythrocytes b) Lymphocytes
c) Thrombocytes d) None of these

(iii) Which blood cells secretes antibody?

- a) Eosinophils b) Monocytes
c) Lymphocytes d) Neutrophils

(iv) What anticoagulants is used for most coagulations tests?

- a) Heparin b) EDTA
c) Wafarin d) Apixaban

(v) Which method is used for estimation of ESR

- a) Westergrens method b) Duke method
c) sahils method d) Ivy method

(vi) Which of the following defines the formation of a blood clot?

- a) Coagulation b) Chemotaxis
c) Leukopoiesis d) Erythropoiesis

(vii) What is the instrument to carry out Red cell count

- a) Electrogram b) Sphygmomanometer

- c) Haemoglobinometer
 (viii) Choose the synonym for Factor II
 a) Fibrinogen
 c) thromboplastin
 (ix) Select the type of cell Platelets are formed from ?
 a) Melanocytes
 c) Macrophages
 (x) Which of the following red blood cell disorders may result from life at a higher altitude?
 a) Aplastic Anemia
 c) Pernicious Anemia
 (xi) Select the depth in Neubauer's counting chamber is
 a) 0.1mm
 c) 1mm
 (xii) Select the following is an example of QA
 a) Validation
 c) Verification
 (xiii) How would you explain the most common inherited bleeding disorder is
 a) Haemophilia A
 c) Von Willebrand disease
 (xiv) How would you interpret MCV & MCH is higher than normal and MCHC is normal in which Anemia
 a) Microcytic anemia
 c) Hypochromic anemia
 (xv) How many smallest squares are used for counting RBC in Neubauer chamber
 a) 16
 c) 400
- d) Hemocytometer
 b) prothrombin time
 d) calcium
 b) Astrocytes
 d) Megakaryocytes
 b) Sickle cell anemia
 d) Polycythemia
 b) 0.01mm
 d) 1.10mm
 b) Software testing
 d) Documentation
 b) Christmas disease
 d) Afibrinogenemia
 b) Macrocytic anemia
 d) aplastic anemia
 b) 200
 d) 64

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Illustrate about clotting factors (3)
3. Explain different types of anticoagulants (3)
4. How microcytic and macrocytic Anaemia are different? (3)
5. Define thrombosis (3)
6. Explain the diagnostic significance of abnormalities reported in WBC (3)

OR

Explain the diagnostic significance of hematocrit value (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Write short note on Red cell indices (5)
8. Write short note on Functions of blood (5)
9. Write short note on Significance of ESR (5)
10. Define the preparation procedure of Anticoagulants (5)
11. A 68-year-old man with a history of unexplained anemia came to his physician's office for further investigation. He noted having increased fatigue and night sweats. A complete blood (5)

count (CBC) was performed and showed a worsening progressive anemia. Design the investigations protocol would you carry out that affects RBC production?

12. Differentiate between PCV and ESR

(5)

OR

Compare between microcytic and macrocytic anemia

(5)
