

- a) To measure the number of red blood cells in a blood sample
 b) To measure the concentration of hemoglobin in a blood sample
 c) To count the number of white blood cells in a blood sample
 d) To measure the volume of packed red blood cells in a blood sample
- (ix) A Patient may be interpreted as Leukocytopenia, when there is
 a) Abnormal increase of Erythrocytes
 b) Abnormal decrease of White Blood Cell
 c) Abnormal increase of Leukocytes
 d) Abnormal increase of Platelets
- (x) Identify the bi-lobed orange coloured coarse granulated cells of human blood
 a) Neutrophil
 b) Eosinophil
 c) Basophil
 d) Lymphocyte
- (xi) Select which anemia MCV, MCH, & MCHC remains normal?
 a) Microcytic Anemia
 b) Macrocytic Anemia
 c) Hemolytic anemia
 d) Normocytic Anemia
- (xii) Choose the physiological condition where the reticulocyte count is raised
 a) Necrosis
 b) Hyperoxia
 c) Hypoxia
 d) Leucocytopenia
- (xiii) Choose the unit considered for Reticulocyte Count
 a) no. of cells/cumm
 b) percentage
 c) pictogram
 d) g%
- (xiv) What is the major site of red cell destruction is
 a) Liver
 b) Spleen
 c) Bone Marrow
 d) Kidney
- (xv) Which blood elements are included in a CBC test
 a) TPC
 b) Hb Estimation
 c) RDW
 d) All of these

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Illustrate different abnormal morphologies of Red Blood Cells. (3)
3. What do you mean by Total Leukocyte Count? Mention the normal result of TLC. (3)
4. List different stains associated with Blood Smear Staining. How would you Stain a smear for microscopical analysis? (3)
5. Enumerate the causes of Anemia & Polycythemia. (3)
6. Compare and contrast between the parameters of BSL 3 and BSL 4 and comment on their effectivity. (3)

OR

Describe the hierarchy of controls in occupational safety and how PPE fits into this hierarchy. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Prepare a chart representing all the Vials used in Clinical Laboratory on the basis of the Anticoagulants, mechanism and Uses. (5)
8. Discuss about the biological calibration method of laminar air flow (5)
9. Select and explain the key steps involved in preparing and interpreting a Leishman-stained blood smear. (5)
10. Describe the types of disposal containers for laboratory test. (5)
11. List different types of Anemia and correlate with their causative factor. (5)
12. Describe the clinical significance of a low mean corpuscular volume (MCV) in the interpretation of red cell indices. Provide examples of conditions associated with microcytic (5)

anemia.

OR

Discuss the clinical significance of a high mean corpuscular hemoglobin (MCH) in the interpretation of red cell indices. Provide examples of conditions associated with macrocytic anemia. (5)
