

Roll no. \_\_\_\_\_

ID: 221924

2<sup>nd</sup> semester/ Branch: DMLT

Subject Name: Applied Hematology

Time Allowed: 3 Hrs.

MM: 60

**Section –A**

**Note: Multiple Choice questions. All questions are compulsory.**

**6x1=6**

- Q.1 Increase number of WBCs is known as \_\_\_\_\_  
(a) Leukocytopenia (b) Leukocytosis  
(c) erythrocytopenia (d) None of these
- Q.2 Which one is used for cell count.  
(a) Haemocytometer (b) Centrifuge  
(c) Glucometer (d) None of these
- Q.3 What is the normal size of Monocyte?  
(a) 10-12 micrometer (b) 8-10 micrometer  
(c) 16-22 micrometer (d) None of these
- Q.4 In Haemoglobin Haem is \_\_\_\_\_ part.  
(a) Iron (b) Protein  
(c) Calcium (d) all of these
- Q.5 Which converts light photons to electronic signals?  
(a) Photodiodes (b) Electrodes  
(c) Mirrors (d) None of these
- Q.6 In which disease/ conditions RBS counts decreased?  
(a) High Altitude (b) Tobacco uses  
(c) Anaemias (d) None of these

**Section-B**

**Note: Objective/Completion type questions. All questions are compulsory.**

**6x1=6**

- Q.7 The Technique which is used for Hb. Estimation is known as (Haemocytometry / Hemoglobinometry).
- Q.8 Define Standard Deviation.
- Q.9 Write the normal value of DLC.
- Q.10 Define Precision.
- Q.11 Normal %age of Lymphocytes.
- Q.12 What is the molecular weight of Haemoglobin.

**Section –C**

**Note: Short answer type Questions. Attempt any eight questions out of ten questions.**

**8x4= 32**

- Q.13 Explain formation of Haemoglobin.
- Q.14 Explain various errors involved in Haemocytometry.
- Q.15 Explain about Neubauer counting chamber in brief.
- Q.16 Explain preparation and staining of blood film in brief.
- Q.17 Explain Internal quality assurance in brief.
- Q.18 Write a short note on Automation.
- Q.19 Write the various function of Blood.
- Q.20 Explain clinical significance of WBC count.
- Q.21 Draw and explain Funchs-Rosenthal counting chamber.
- Q.22 Write the procedure of Platelets count.

**Section-D**

**Note: Long answer questions. Attempt any two questions out of three questions.**

**2x8=16**

- Q.23 Explain Cyanmethemoglobin method for Haemoglobin estimation with specific reference.
- Q.24 Explain RBS count with their calculation & clinical significance.
- Q.25 (a) Write any four importance of coulter cell counter.  
(b) Explain External Quality Assurance in brief.