

BACHELOR IN MEDICAL LABORATORY TECHNOLOGY  
THIRD SEMESTER  
APPLIED HEMATOLOGY  
BMLT-301

**SET  
B**

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 3 hrs.

Full Marks: 70

Time: 30 mins.

**(Objective)**

Marks: 20

1×20=20

Choose the correct answer from the following:

- In adults erythropoiesis occurs mainly in
  - Small bones of hand and feet
  - Flat and long bones
  - Spleen and lung
  - Kidney and adrenals
- Which factor is known as Christmas factor-
  - IX
  - X
  - I
  - IV
- Site for Bone marrow aspirate is
  - capillary
  - Sternum
  - Anti cubital vein
  - None of the above
- The anticoagulant of choice blood cell count is
  - EDTA
  - Heparin
  - Sodium citrate
  - Double oxalate
- The colored pigment present in hemoglobin is known as
  - Globin
  - Heme
  - Iron
  - Bilirubin
- Normal values of neutrophil is
  - 40-75%
  - 1-4%
  - 0-1%
  - 2-8%
- Which finger is most commonly used for Pricking
  - Left ring finger
  - Right ring finger
  - Left middle finger
  - Right middle finger
- Heinz body in RBC can be present in
  - Chemical poisoning
  - Drug intoxication
  - G6PD deficiency
  - All options
- Red blood cell is performed by..... method
  - Electrocardiogram
  - Haemocytometry
  - Sphygmomanometer
  - MRI
- Haematoxylin component stains the cell nuclei
  - Blue black
  - pink
  - red
  - None of the above
- Main function of platelets
  - Delivery of oxygen
  - Hemostasis

- c. Immune regulation  
d. Defence against infections organisms
12. Glucose- 6- Phosphate deficiency provides protection from  
a. HIV  
b. HbSAg  
c. Malaria  
d. Filariasis
13. Which Vitamin is responsible for blood clotting  
a. Vitamin K  
b. Vitamin B  
c. Vitamin C  
d. Vitamin D
14. Laboratory test that assesses the function of coagulation factors involved in intrinsic pathway is  
a. Prothrombin time  
b. Partial thromboplastin time  
c. Hess test  
d. Bleeding time
15. Excessive destruction of blood cells causes  
a. Jaundice  
b. Both a & b  
c. Anemia  
d. None of the above
16. What is the cause of anemia  
a. Iron deficiency  
b. Acute blood loss  
c. Bone marrow depression  
d. All of the above
17. Time for whole blood to coagulate at  
a. 45%  
b. 37%  
c. 40%  
d. 15%
18. Why blood does not clot in our body  
a. Due to presence of heparin  
b. Due to exhale of CO<sub>2</sub>  
c. Due to inhale of oxygen  
d. Due to the pressure of blood flow
19. A component of Hb that bind to oxygen is  
a. Iron  
b. Nickle  
c. Cobalt  
d. Copper
20. The average life span of normal RBC is  
a. 110-120 days  
b. 130 days  
c. 150 days  
d. None of the above

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**( Descriptive )**

Time : 2 hrs. 30 mins.

Marks : 50

[ Answer question no.1 & any four (4) from the rest ]

1. What is leucocyte ,write the fuction and types of WBC with diagram? 10
2. Write a brief note on Hein'z body preparation? 10
3. What is hematology and write the process of biosynthesis of hemoglobin? 10
4. Write the principle and procedure and clinical significance of osmotic fragility test . 10
5. What is fibrinolysis ?What are the different types of clotting factor. 10
6. What is thrombocytes and write the laboratory investigation of platelet disorder? 10
7. Write a note on bone marrow aspiration and trephine biopsy? 10
8. Write the procedure of peripheral blood film. 10

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