

Blood

1. Define blood

2. What are the major components of the blood

- a. Plasma
 - i. Water
 - ii. Proteins
 - iii. Electrolytes (Na, K, Ca etc.)
 - iv. Biomolecules (Glucose, amino acids, fatty acids, enzymes, hormones etc.)
 - v. Waste products (urea, uric acid, Creatinine etc.)
 - vi. Blood Gases
- b. Cells/formed elements
 - i. Erythrocytes (RBCs)
 - ii. Thrombocytes (Platelets)
 - iii. Leucocytes (WBCs)
 - Granulocytes
 - Neutrophils
 - Basophils
 - Eosinophils
 - Agranulocytes
 - Monocytes
 - Lymphocytes
 - B lymphocytes
 - T lymphocytes

3. What are the main functions of the blood

4. Write major steps of erythropoiesis

5. What is granulopoiesis

6. What is the major difference between B and T lymphocytes

7. What are the subtypes of Lymphocytes and their functions

T-Lymphocytes	Helper cells (CD-4)	
	Suppressor cells	
	Cytotoxic cells (CD-8)	
	Memory cells	
B-Lymphocytes	Plasma cells	
	Memory cells	

8. What is the difference between plasma and serum?

9. Some important features of blood cells

- a. Name of Immature cells ends in “blast” e.g. erythroblast, lymphoblast etc.
- b. Name of the mature cells ends in “cyte” e.g. erythrocyte, lymphocyte etc.
- c. Immature cells pick basic stain and appears in blue color
- d. Mature cells pick acidic stain and appears in pink color

10. Draw the shapes of all WBCs.