

---

Name:

Student Id:

Date: 1/2/1438

---

**I- Choose the correct words to complete sentences:**

1) Which of the following is the function of white blood cells?

- a) Transport oxygen.
- b) Maintain homeostasis.
- c) Defend against infection.
- d) Produce hemoglobin.

2) Most of the volume of normal human blood is composed of:

- a) Red cells.
- b) Hemoglobin.
- c) Plasma.
- d) White cells.

3) Erythrocyte is another name for a:

- a) Red cell.
- b) White cell.
- c) Platelet.
- d) Lymphocyte

4) The average blood volume for an adult is about

- a) 45 liters
- b) 450 ml
- c) 5 gallons
- d) 5 liters

5) All Cells Are Nucleated EXCEPT: -

- a) Basophil.
- b) Leucocyte.
- c) Red blood cells.
- d) Monocytes.

**II- Respond to the following statement by writing T (True) or F (False):**

- 1) Diffusion of water across a cell membrane generates a pressure called osmotic pressure. [ T ]
- 2) Blood helps to maintain homeostasis by breaking down nutrients. [ F ]
- 3) The major function of platelet is attack microbes. [ F ]
- 4) The white blood cells removed by spleen and liver after 120 days' circulation. [ F ]
- 5) To count red cells we prepare suspension of it in isotonic solution. [ T ]

**III- Write short notes about lymphocytes:**

**Answer**

- 20 - 45 %
- Provides immunity.
- Two types: B-lymphocytes and T-lymphocytes.
- B – lymphocytes provide humoral immunity.
- T – lymphocytes provide cell-mediated immunity.
- B – cells differentiate into plasma cells which further produces 5 classes of antibodies that provides immunity.

- T- cytotoxic cells aim to eliminate: Virus-infected cells, cancer cells and also causes graft rejection.