

TRUE AND FALSE

Cells that move toward chemicals released by damaged cells are said to demonstrate positive chemotaxis.

True False

Persons with type AB blood are sometimes called universal donors.

True False

A red blood cell contains a large nucleus; it is thicker near the center and thin around the rim of the cell.

True False

A platelet plug is formed when fibrinogen is converted to fibrin.

True False

Older red blood cells may be destroyed in the spleen.

True False

The movement of lymph through lymphatic vessels is caused largely by muscular activities.

True False

MULTIPLE CHOICE

The biconcave cells in blood that lack nuclei when they are mature are the

- A. white blood cells.
- B. red blood cells.
- C. platelets.
- D. macrophages.

Which of the following is an agranulocyte?

- A. basophil
- B. eosinophil
- C. monocyte
- D. neutrophil

The normal white blood cell count is between

- A. 500–1,000 cells per cubic millimeter of blood.
- B. 5,000–10,000 cells per cubic millimeter of blood.
- C. 50,000–100,000 cells per cubic millimeter of blood.
- D. 500,000–1,000,000 cells per cubic millimeter of blood.

A primary function of lymphocytes is to

- A. phagocytize damaged cells.
- B. produce enzymes that dissolve blood clots.
- C. release substances that initiate blood clots.
- D. act against foreign substances.

Platelets are best defined as

- A. giant, multinucleated cells.
- B. cytoplasmic fragments of cells.
- C. immature leukocytes.
- D. lymphoid cells.

As a platelet plug forms, platelets release the vasoconstricting substance called

- A. collagen.
- B. creatine.
- C. serotonin.
- D. fibrin.

The basic event in the formation of a blood clot is the change of

- A. fibrinogen to fibrin.
- B. fibrin to fibrinogen.
- C. thrombin to prothrombin.
- D. vitamin K to prothrombin.

Type AB blood contains

- A. agglutinin A and B.
- B. agglutinin A and agglutinin B.
- C. agglutinin A and agglutinin B.
- D. agglutinin A and B.

The most active phagocytic cells among the leukocytes are

- A. basophils and eosinophils.
- B. neutrophils and monocytes.
- C. lymphocytes and neutrophils.
- D. monocytes and lymphocytes.

The most important action of plasma albumins is

- A. acting as antibodies of immunity.
- B. helping to control bleeding.
- C. serving as energy sources.
- D. helping to maintain blood osmotic pressure.

Of the plasma electrolytes, the most abundant are

- A. sodium and chloride ions.
- B. sodium and potassium ions.
- C. potassium and calcium ions.
- D. phosphate and sulfate ions.

Erythroblastosis fetalis can be prevented by treating

- A. Rh-positive mothers with Rh-positive blood cells.
- B. Rh-positive mothers with anti-Rh agglutinin.
- C. Rh-negative mothers with Rh-positive blood cells.
- D. Rh-negative mothers with anti-Rh agglutinin.

The spleen

- A. functions as a blood reservoir.
- B. is responsive to low oxygen concentration.
- C. contains numerous macrophages.
- D. All of the choices are correct.

The structure of a lymphatic vessel is most similar to that of a (an)

- A. artery.
- B. arteriole.
- C. vein.
- D. capillary.

Which of the following is an example of a specific body defense mechanism?

- A. phagocytosis
- B. inflammation
- C. immunity
- D. enzyme action

Interferon is a group of proteins produced by cells in response to the presence of

- A. chemical irritants.
- B. viruses.
- C. bacterial cells.
- D. malarial parasites.

The most active phagocytic cells found in circulating blood are

- A. neutrophils and monocytes.
- B. neutrophils and eosinophils.
- C. monocytes and macrophages.
- D. none of the choices are correct.

The cells that are primarily responsible for immunity are

- A. lymphocytes and macrophages.
- B. neutrophils and lymphocytes.
- C. monocytes and macrophages.
- D. lymphocytes and monocytes.

T-lymphocytes are responsible for

- A. programming macrophages.
- B. producing antibodies.
- C. cell-mediated immunity.
- D. antibody-mediated immunity.

The formation of lymph increases as a result of

- A. increasing osmotic pressure in blood capillaries.
- B. increasing osmotic pressure in tissue fluid.
- C. decreasing volume of tissue fluid.
- D. decreasing protein concentration in tissue fluid.

FILL IN THE BLANK

An abnormally low white blood cell count is called _____.

When hemoglobin molecules are decomposed, a greenish pigment called _____ is formed.

The hormone released from the kidneys that promotes the production of red blood cells is _____.

Normally the most common type of leukocyte in a blood sample is the _____.

The most abundant type of plasma protein is _____.

_____ is the term used to describe the stoppage of bleeding by any one of several means.

In an adult, red blood cells are produced primarily in the _____.

Lymph is _____ that has entered a lymphatic capillary.

Disease-causing agents such as viruses and bacteria are called _____.

The widely distributed phagocytic cells that remain fixed in position constitute the _____ tissue.