

## Choose the correct answer from the following questions:

1) The hormone that regulates the rate of erythrocyte production is called:

- A) renin
- B) vasopressin
- C) erythropoietin
- D) leukopoietin

2) Which one of the following formed elements is the most abundant:

- A) platelets
- B) leukocytes
- C) erythrocytes
- D) white blood cells

3) Blood cell formation is called \_\_\_\_\_ and occurs within the bone marrow.

- A) hemolysis
- B) heme
- C) hematopoiesis
- D) hemoglobin
- E) hemostasis

4) The average functional lifespan of a red blood cell is:

- A) the body's lifetime
- B) 50-75 days
- C) 100-120 days
- D) one year
- E) 20-30 days

5) There are an average of \_\_\_\_\_ white blood cells per cubic millimeter of whole blood.

- A) 100-1000
- B) 4000-11,000
- C) 11,000-20,000
- D) 50,000-100,000
- E) 1 million-3 million

6) **True or false:** Erythropoietin is released to stimulate white blood cell production in response low levels of oxygen within the blood.

7) **True or false:** Leukocytes are more numerous in blood than erythrocytes.

### Application Question:

Some people use chemicals known as barbiturates to reduce feelings of anxiety. Barbiturates cause hypoventilation, which is a reduced rate of breathing, because they decrease the activity of the parts of the brain responsible for our breathing. What do you suppose happens to the red blood count of a habitual user of barbiturates? Defend your answer.