

## Test – Lesson 14 – Homeostasis - Part 2

1. Which statement is not true?

- (A) Blood pressure is monitored in the heart, aorta, and carotid arteries.
- (B) Blood pressure is monitored in the kidneys.
- (C) Blood pressure is monitored by baroreceptors.
- (D) In response to hypotension, the heart beats faster and blood vessels dilate.

2. Renin \_\_\_\_\_.

- (A) is secreted by the lungs
- (B) snips off a part of angiotensinogen
- (C) results in the release of angiotensin II
- (D) results in the release of aldosterone

3. Which statement about glucose and energy use is not true?

- (A) The brain stores enough glucose to last only about 15 minutes of normal brain activity.
- (B) The brain is made up mostly of fat but does not store fat for energy use.
- (C) Blood sugar is monitored by the islets of Langerhans.
- (D) The islets of Langerhans are in the pancreas.

4. Which statement about glycogen is not true?

- (A) Insulin stimulates the liver to store glucose as glycogen.

(B) Insulin stimulates muscles to store glucose as glycogen.

(C) Glucagon stimulates muscles to release their stores of muscle glycogen in response to hypoglycemia.

(D) Glucagon stimulates the liver to release its stores of glycogen in response to hypoglycemia.

5. Which statement about breathing is not true?

(A) Oxygen levels in the body are monitored by the carotid body in the carotid arteries.

(B) Breathing is stimulated more by rising carbon dioxide levels than by falling oxygen levels.

(C) Carbon dioxide levels are monitored by the respiratory center in the lungs.

(D) The respiratory center monitors the acidity of the blood.

6. Which statement about carbon dioxide is not true?

(A) Carbon dioxide is made by mitochondria.

(B) Some carbon dioxide is carried to the lungs by hemoglobin.

(C) Carbon dioxide is acted upon by carbonic anhydrase inside red blood cells.

(D) The majority of carbon dioxide is carried to the lungs as dissolved carbonate ions.

7. Which statement about the breathing center in the medulla of the brain stem is true?

- (A) Carbon dioxide acts directly on the breathing center in the medulla of the brain stem.
- (B) Bicarbonate ions act directly on the breathing center in the medulla of the brain stem.
- (C) Protons act directly on the breathing center in the medulla of the brain stem.
- (D) Oxygen acts directly on the breathing center in the medulla of the brain stem.

8. Narcotics prevent the lungs from breathing \_\_\_\_\_.

- (A) and in doing so, cause the blood to become more acidic
- (B) and in doing so, cause the urine to become more alkaline
- (C) by making the breathing center in the medulla insensitive to lack of oxygen
- (D) by blocking signals sent from the breathing center in the medulla instructing the chest muscles to inhale

9. Antidiuretic hormone lowers the concentration of osmoles in the blood by \_\_\_\_\_.

- (A) stimulating the thirst center
- (B) inhibiting the urge to urinate
- (C) preventing the kidneys from urinating water
- (D) making the urine dilute

10. Acidosis (excess acid in the blood) triggers a response by \_\_\_\_\_.

- (A) the kidneys to excrete hydrogen ions into the urine
- (B) the kidneys to reabsorb hydrogen ions from the urine
- (C) the kidneys to excrete bicarbonate ions into the urine
- (D) the lungs to release angiotensin I