

Human Physiology and Health Literacy

Biology · Answer Key · 8 Questions

1. Which specific hormone, secreted by the alpha cells of the pancreatic islets, is primarily responsible for the glycogenolysis process in the liver?

- A) Insulin
- B) Glucagon**
- C) Somatostatin
- D) Gastrin

2. In the human circulatory system, which layer of the arterial wall is composed primarily of smooth muscle cells and elastic fibers?

- A) Tunica intima
- B) Tunica adventitia
- C) Tunica media**
- D) Endothelium

3. Which cranial nerve is responsible for the parasympathetic innervation of the thoracic and abdominal viscera?

- A) Trigeminal nerve
- B) Vagus nerve**
- C) Glossopharyngeal nerve
- D) Accessory nerve

4. What is the primary function of the proximal convoluted tubule within the human nephron?

- A) Filtration of plasma
- B) Reabsorption of glucose and amino acids**
- C) Active secretion of urea
- D) Concentration of urine via osmosis

5. Which immunoglobulin isotype is most abundant in human serum and is the only one capable of crossing the placental barrier?

- A) IgA
- B) IgM
- C) IgE
- D) IgG**

6. During the cardiac cycle, the 'lub' sound (S1) is caused by the closure of which specific heart valves?

A) Aortic and pulmonary valves

B) Mitral and tricuspid valves

C) Mitral and aortic valves

D) Tricuspid and pulmonary valves

7. Which mineral is a critical component of the enzyme glutathione peroxidase, which protects cells from oxidative damage?

A) Selenium

B) Zinc

C) Magnesium

D) Molybdenum

8. The human body's thermoregulation center is located in which specific region of the diencephalon?

A) Thalamus

B) Epithalamus

C) Hypothalamus

D) Subthalamus