

BIOL-8 Practice Test 05

Module 9: Tissues and the Animal Body

Instructions: This practice test covers material from Module 9. Answer all questions to the best of your ability.

Part A: Multiple Choice

Homeostasis & Body Systems

- 1.** The process by which the body maintains a stable internal environment is called: A) Metabolism B) Homeostasis C) Photosynthesis D) Fermentation

- 2.** A thermostat that turns on the heater when a room gets too cold is an example of: A) Positive feedback B) Negative feedback C) Osmosis D) Diffusion

- 3.** Maintaining the proper balance of water and salt in the body is called: A) Thermoregulation B) Osmoregulation C) Homeostasis only D) Metabolism

- 4.** Which organ system is most responsible for maintaining water and salt balance? A) Respiratory system B) Urinary (excretory) system C) Muscular system D) Skeletal system

Digestive System

- 5.** Breaking food into smaller pieces by chewing is an example of: A) Chemical digestion B) Mechanical digestion C) Absorption D) Fermentation

- 6.** Which organ is considered the most important for nutrient absorption? A) Stomach B) Large intestine C) Small intestine D) Esophagus

- 7.** Which of the following is an accessory organ of digestion? A) Small intestine B) Stomach C) Liver D) Esophagus

Circulatory & Respiratory Systems

- 8.** Which type of blood vessel carries blood AWAY from the heart? A) Vein B) Capillary C) Artery D) Venule
- 9.** Where does gas exchange (O_2 in, CO_2 out) occur in the lungs? A) Bronchi B) Trachea C) Alveoli D) Larynx
- 10.** Why is the left ventricle of the heart thicker than the right ventricle? A) It pumps blood to the lungs, which are far away B) It pumps blood to the entire body, requiring more force C) It holds more blood than the right side D) It has more valves than the right side

Endocrine System

- 11.** Chemical messengers produced by endocrine glands and carried by the blood are called: A) Enzymes B) Neurotransmitters C) Hormones D) Antibodies
- 12.** Which organ uses the hormones insulin and glucagon to regulate blood sugar? A) Thyroid B) Adrenal gland C) Pancreas D) Pituitary gland
- 13.** The part of the brain that links the nervous system and the endocrine system is the: A) Cerebellum B) Medulla C) Hypothalamus D) Cerebrum

Musculoskeletal System

- 14.** Which type of muscle is voluntary and attached to bones? A) Smooth muscle B) Cardiac muscle C) Skeletal muscle D) Visceral muscle
- 15.** Which type of muscle is found in the walls of hollow organs like the stomach and blood vessels? A) Skeletal muscle B) Cardiac muscle C) Smooth muscle D) Striated muscle
- 16.** Besides support and movement, the skeletal system also: A) Produces hormones for digestion B) Protects organs and produces blood cells C) Absorbs nutrients from food D) Filters waste from the blood

Nervous System

- 17.** The central nervous system (CNS) consists of the: A) Nerves and ganglia B) Brain and spinal cord C) Sensory and motor neurons D) Heart and blood vessels
- 18.** The part of a neuron that carries signals AWAY from the cell body is the: A) Dendrite B) Cell body C) Axon D) Synapse
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Part B: Fill in the Blank

- 19.** In a negative feedback loop, the response ___ (opposes / amplifies) the original stimulus to bring the body back to normal.
- 20.** The three types of blood vessels are ___, ___, and ___.
- 21.** The three types of muscle tissue are ___, ___, and ___.
- 22.** A ___ neuron carries information FROM the senses TO the brain, while a ___ neuron carries commands FROM the brain TO the muscles.
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Part C: Short Answer

- 23.** Explain the difference between negative feedback and positive feedback. Give one biological example of each.
- 24.** Trace the path of a bite of food from the mouth to the large intestine, naming each organ it passes through and its main function.

25. Compare the three types of muscle tissue (skeletal, cardiac, smooth) in terms of where each is found and whether its movement is voluntary or involuntary.

26. You accidentally touch a hot pan. Describe how the nervous system, muscular system, and skeletal system work together to pull your hand away.

End of Practice Test 05