Name _____ Class _____ Date _____

SECTION 45-1 REVIEW

THE HUMAN BODY PLAN

VOCABULARY REVIEW Describe the functions of the tissues listed below.

1. nervous tissue _____

2. muscular tissue _____

3. skeletal muscle _____

4. epithelial tissue _____

5. connective tissue _____

MULTIPLE CHOICE Write the correct letter in the blank.

_____ 1. Nervous tissue contains specialized cells called

a. transmitters. **b.** messenger cells. **c.** neurons. **d.** cardiac cells.

_____ 2. Tissue that binds, supports, and protects structures is called

a. connective tissue. **c.** skeletal tissue.
b. muscle tissue. **d.** epithelial tissue.

_____ 3. Organ systems consist of

a. tissues. **b.** cells. **c.** organs. **d.** All of the above

_____ 4. The body cavity that contains the heart, esophagus, and organs of the respiratory system is the

a. cranial cavity. **c.** abdominal cavity.
b. spinal cavity. **d.** thoracic cavity.

_____ 5. Which organ system includes the kidneys, ureters, bladder, urethra, lungs, and skin?

a. integumentary system **c.** excretory system
b. digestive system **d.** endocrine system

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Name _____ Class _____ Date _____

SHORT ANSWER **Answer the questions in the space provided.**

1. List three types of muscle tissue. _____

2. Describe how body tissues, organs, and organ systems are related. _____

3. Describe the composition of connective tissue. _____

4. Describe two functions of nervous tissue. _____

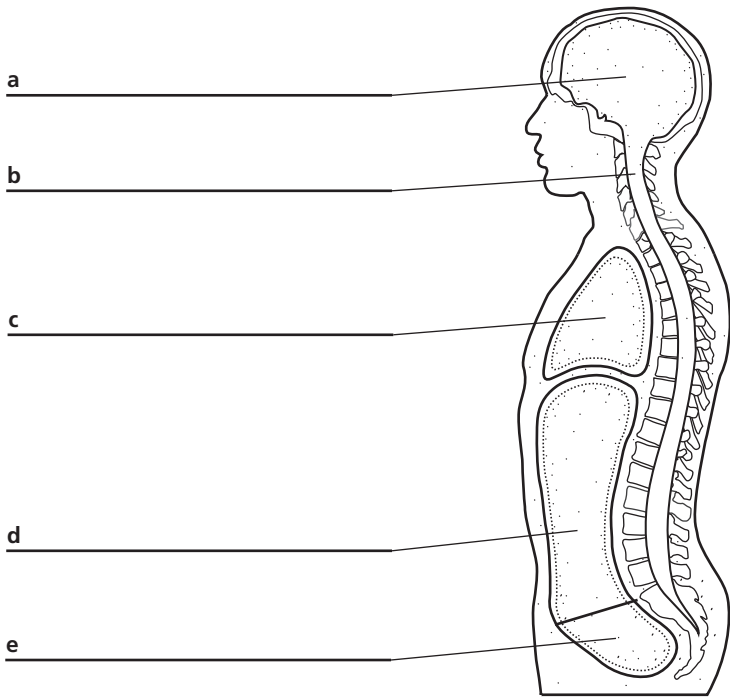
5. **Critical Thinking** Can an organ be part of more than one organ system? Explain your answer.

STRUCTURES AND FUNCTIONS **Use the figure below to answer the following questions.**

1. Label each part of the figure in the spaces provided.

2. Which of the labeled body cavities contain the central nervous system? _____

3. What is the function of the body cavities? _____



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Name _____ Class _____ Date _____

SECTION 45-2 REVIEW

SKELETAL SYSTEM

VOCABULARY REVIEW **Explain the relationship between the terms in each of the following pairs of terms.**

1. axial skeleton, appendicular skeleton _____

2. periosteum, compact bone _____

3. bone marrow, spongy bone _____

4. ossification, epiphyseal plate _____

5. joint, ligament _____

MULTIPLE CHOICE **Write the correct letter in the blank.**

_____ **1.** The process in which bone cells gradually replace cartilage is called

a. ossification. **c.** restoration.
b. osteoarthritis. **d.** None of the above

_____ **2.** The axial skeleton includes bones of the

a. arms. **b.** legs. **c.** ribs. **d.** All of the above

_____ **3.** Semimovable joints are found

a. in the knees. **c.** in the thumbs.
b. between vertebrae. **d.** in the elbows.

_____ **4.** Tough bands of connective tissue that hold bones in place are called

a. ligaments. **b.** tendons. **c.** gliding joints. **d.** muscles.

_____ **5.** Osteoarthritis is characterized by

a. stretching of ligaments. **c.** fracturing of bones.
b. autoimmunity. **d.** thinning of cartilage.

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SHORT ANSWER **Answer the questions in the space provided.**

1. Describe three functions of bones. _____

2. List three types of joints, and give an example of each type. _____

3. Describe the importance of bone marrow. _____

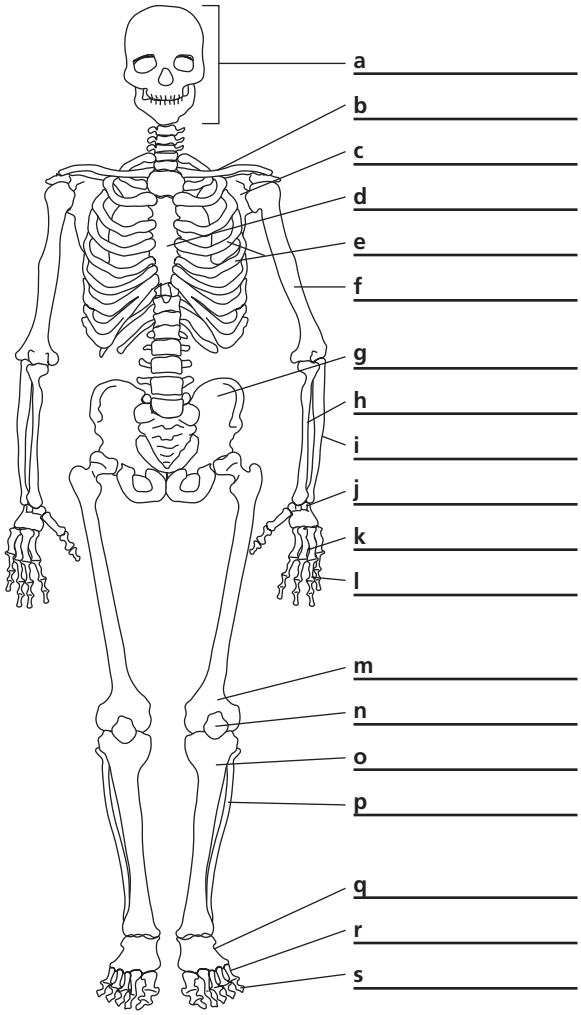
4. **Critical Thinking** Why is dietary calcium important to bone growth and maintenance?

STRUCTURES AND FUNCTIONS **Use the figure of the human skeleton at right to answer the following questions.**

1. Label each part of the figure in the spaces provided.

2. What are the primary functions of the skeleton? _____

3. How do bones elongate? _____



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Name _____ Class _____ Date _____

SECTION 45-3 REVIEW

MUSCULAR SYSTEM

VOCABULARY REVIEW **Distinguish between the terms in each of the following pairs of terms.**

1. voluntary muscle, involuntary muscle _____

2. origin, insertion _____

3. flexor, extensor _____

4. actin, myosin _____

5. muscle fatigue, oxygen debt _____

MULTIPLE CHOICE **Write the correct letter in the blank.**

_____ 1. Which of the following types of muscle tissues is found in the walls of the stomach, intestines, and blood vessels?

a. cardiac muscle **b.** smooth muscle **c.** skeletal muscle **d.** voluntary muscle

_____ 2. Which of the following types of muscle tissues is responsible for moving most parts of the body?

a. cardiac muscle **b.** smooth muscle **c.** skeletal muscle **d.** involuntary muscle

_____ 3. A sarcomere

a. is the functional unit of muscle contraction.
b. consists of myofibrils.
c. uses ATP.
d. All of the above

_____ 4. Muscles that cause a joint to bend are called

a. flexors. **b.** origins. **c.** extensors. **d.** insertions.

_____ 5. Which of the following happens when a skeletal muscle contracts?

a. Sarcomeres shorten.
b. Myosin heads bend outward.
c. Myosin heads attach to actin filaments.
d. All of the above

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SHORT ANSWER **Answer the questions in the space provided.**

1. How does a runner acquire an oxygen debt? _____

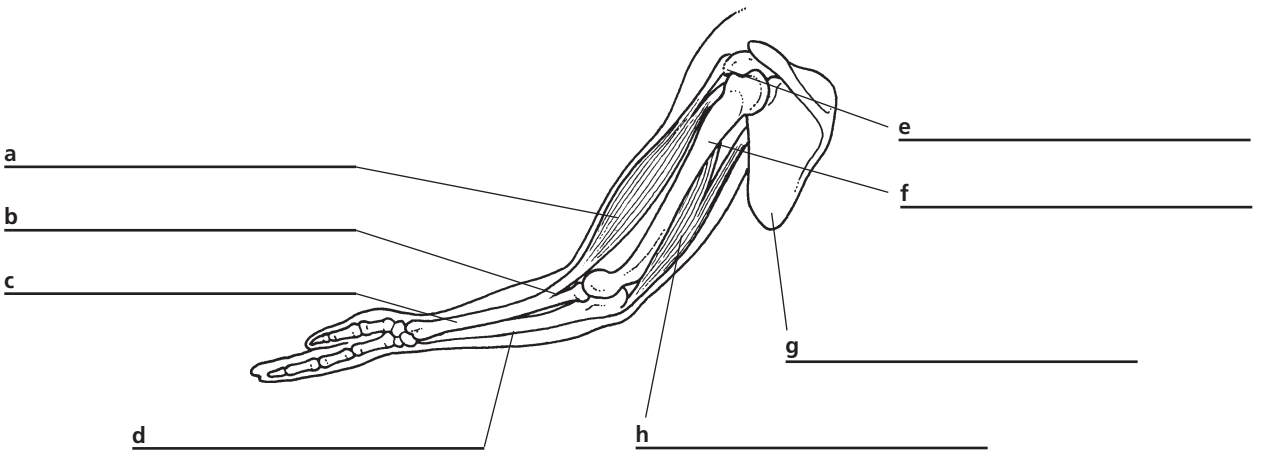
2. How does a muscle contract? _____

3. Distinguish between the three types of muscle tissue. _____

4. **Critical Thinking** Why are flexors and extensors considered antagonistic muscles?

STRUCTURES AND FUNCTIONS **Use the figure of the human arm below to answer the following questions.**

1. Label each part of the figure in the spaces provided.



2. Which muscle is a flexor and which muscle is an extensor? _____

3. Where is the insertion of *a* located? Where is the origin of *a* located? _____

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Name _____ Class _____ Date _____

SECTION 45-4 REVIEW

INTEGUMENTARY SYSTEM

VOCABULARY REVIEW Define the following terms.

1. exocrine gland _____

2. melanin _____

3. sebum _____

4. keratin _____

5. sweat gland _____

MULTIPLE CHOICE Write the correct letter in the blank.

_____ 1. The dermis

a. covers the epidermis.
b. produces melanin.
c. contains nervous tissue and blood vessels.
d. consists mostly of dead cells.

_____ 2. Which of the following is secreted by oil glands in the skin?

a. melanin
b. sebum
c. keratin
d. sweat

_____ 3. Which of the following is *not* a function of the layer of fat cells beneath the dermis?

a. produces oil
b. provides an energy reserve
c. absorbs shock
d. insulates the body

_____ 4. Hair and nails are composed primarily of

a. sebum.
b. keratin.
c. glands.
d. All of the above

_____ 5. Sweat glands

a. secrete sebum into the bloodstream.
b. stimulate hair follicles.
c. help maintain a steady body temperature.
d. insulate the body.

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SHORT ANSWER **Answer the questions in the space provided.**

1. Describe the functions of the skin. _____

2. How does exposure to ultraviolet light influence melanin production in the skin? _____

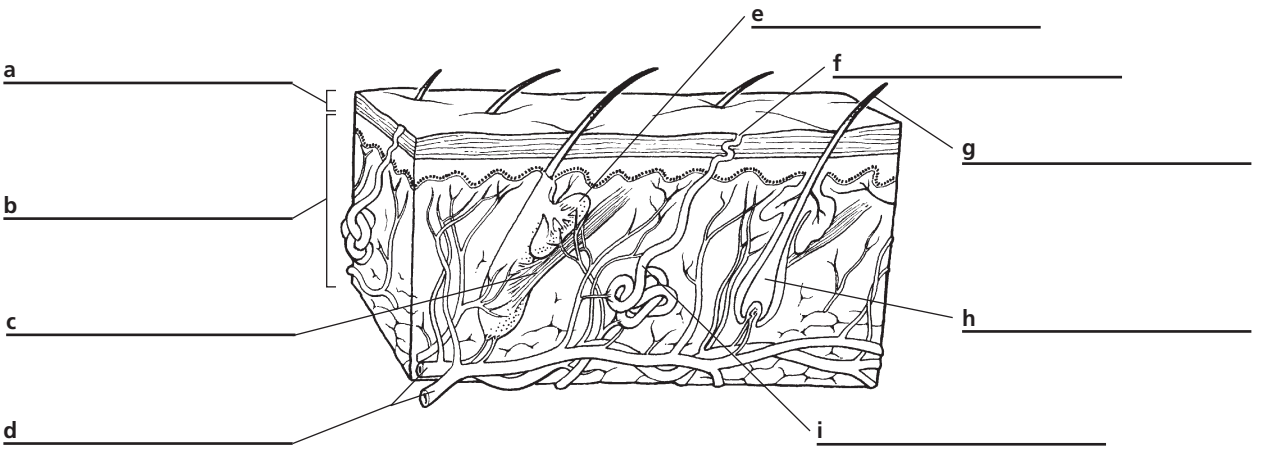
3. Describe the functions of the epidermis. _____

4. How are hair and nails similar in structure? _____

5. **Critical Thinking** What causes freckles and pigmented moles? _____

STRUCTURES AND FUNCTIONS **Use the figure below to answer the following questions.**

1. Label each part of the figure in the spaces provided.



2. Which structures contain keratin? _____

3. Explain how the dermis enables the body to interact with the external environment.

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