

# SKELETAL MUSCLE STRUCTURE

**PART A**

Match the terms in column A with the definitions in column B. Place the letter of your choice in the space provided.

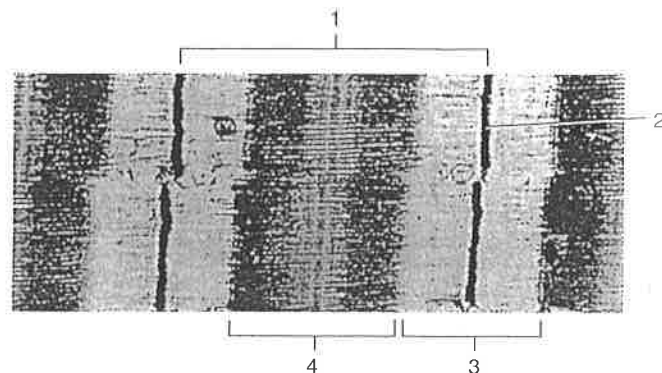
Column A		Column B
a. Endomysium	_____	1. Membranous channel extending inward from muscle fiber membrane
b. Epimysium	_____	2. Cytoplasm of a muscle fiber
c. Fascia	_____	3. Network of connective tissue that extends throughout the muscular system
d. Fascicle	_____	4. Layer of connective tissue that separates a muscle into small bundles called fascicles
e. Myosin	_____	5. Cell membrane of a muscle fiber
f. Perimysium	_____	6. Layer of connective tissue that surrounds a skeletal muscle
g. Sarcolemma	_____	7. Unit of alternating light and dark striations between Z lines
h. Sarcomere	_____	8. Layer of connective tissue that surrounds an individual muscle fiber
i. Sarcoplasm	_____	9. Cellular organelle in muscle fiber corresponding to the endoplasmic reticulum
j. Sarcoplasmic reticulum	_____	10. Cordlike part that attaches a muscle to a bone
k. Tendon	_____	11. Protein found within thick myofibril
l. Transverse tubule	_____	12. A small bundle of muscle fibers

**PART B**

Provide the labels for the electron micrograph in figure 19.4.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

Figure 19.4

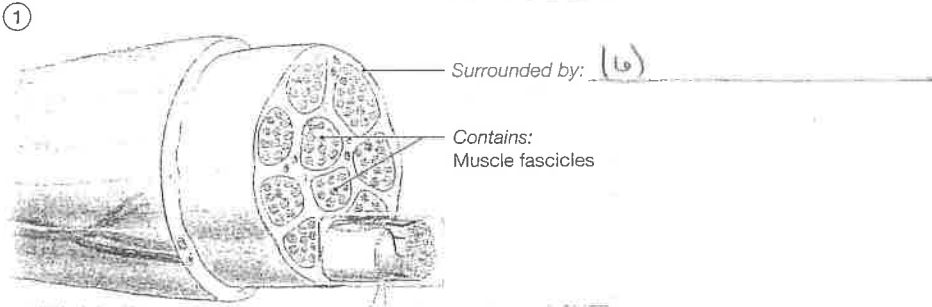


**Terms:**  
 A band (dark)  
 I band (light)  
 Sarcomere  
 Z line

Identify each level of functional organization in a skeletal muscle. Place your answers in the spaces provided.

OUTCOME 10-2, 10-3 **FIGURE 10-5** Levels of Functional Organization in a Skeletal Muscle

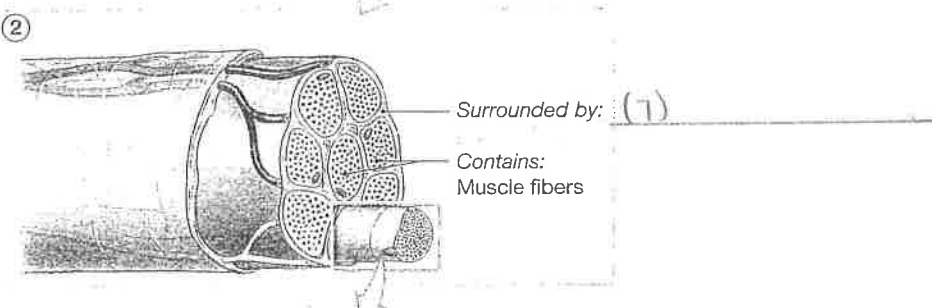
(1) \_\_\_\_\_



Surrounded by: (6) \_\_\_\_\_

Contains: Muscle fascicles

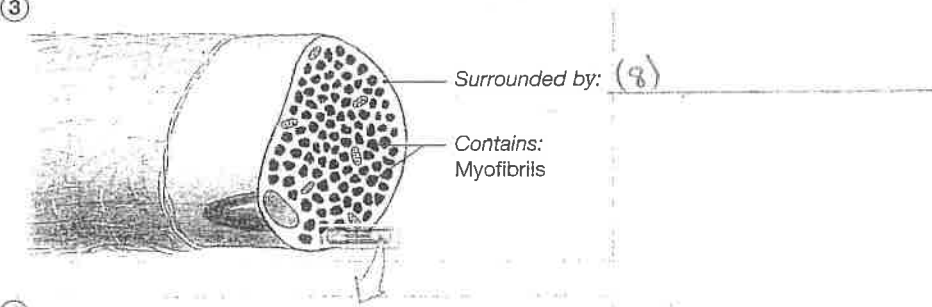
(2) \_\_\_\_\_



Surrounded by: (7) \_\_\_\_\_

Contains: Muscle fibers

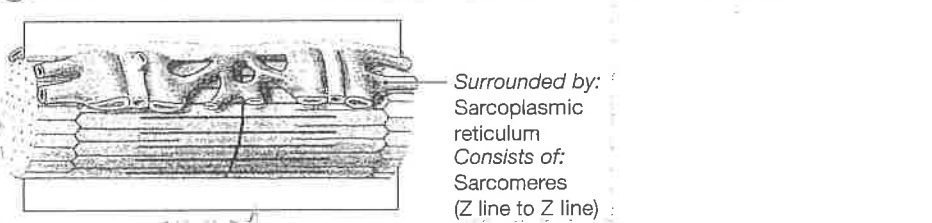
(3) \_\_\_\_\_



Surrounded by: (8) \_\_\_\_\_

Contains: Myofibrils

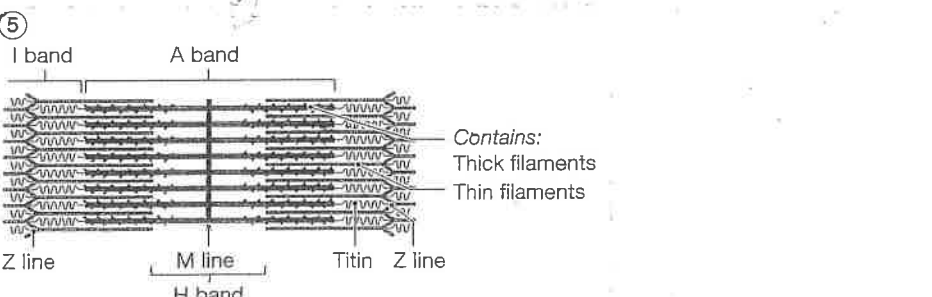
(4) \_\_\_\_\_



Surrounded by: Sarcoplasmic reticulum

Consists of: Sarcomeres (Z line to Z line)

(5) \_\_\_\_\_



I band      A band

Z line      M line      Titin      Z line

H band

Contains: Thick filaments

Thin filaments