

Name \_\_\_\_\_ Muscle System HW

1. Cardiac and skeletal muscles contain visible bands that are called \_\_\_\_\_.
2. The muscular layer of the intestine is composed of visceral, or \_\_\_\_\_, muscle.
3. The ability of a muscle to transmit electrical current is termed \_\_\_\_\_.
4. The ability of a muscle to shorten is termed \_\_\_\_\_.
5. The two filaments forming a cross-bridge during a muscle contraction are called \_\_\_\_\_ and \_\_\_\_\_.
6. The neurotransmitter released at the neuromuscular junction is called \_\_\_\_\_.
7. The space between the nerve and muscle cell is called the \_\_\_\_\_.
8. The energy-storing compound that is made in the mitochondria is \_\_\_\_\_.
9. Muscles operating anaerobically will build up \_\_\_\_\_.
10. The increase in muscle size resulting from resistance training is termed \_\_\_\_\_.
11. A contraction that shortens the muscle but does not increase muscle tension is called \_\_\_\_\_.
12. Mr. M's arm muscle is contracted because he is carrying a heavy box. This contraction, which is associated with an increase in muscle tension, is termed \_\_\_\_\_.
13. The muscle attachment to the immovable bone is called \_\_\_\_\_.

14. The muscle attachment to the movable bone. \_\_\_\_\_
15. The \_\_\_\_\_ tendon is attached to the heel.
16. A bundle of muscle fibers is called a(n)  
A) fascicle  
B) sheath  
C) fascia  
D) epimysium
17. The membrane surrounding individual muscle fibers is the  
A) epimysium  
B) deep fascia  
C) endomysium  
D) perimysium
18. Which of the following is NOT a function of the muscular system?  
A) skeletal movement  
B) heat generation  
C) posture  
D) body cooling through evaporation
19. A single neuron and all the muscle fibers it stimulates comprise a(n)  
A) neuromuscular junction  
B) motor end plate  
C) motor unit  
D) synapse
20. The two filaments that form cross-bridges are  
A) actin and troponin  
B) tropomyosin and myosin  
C) actin and myosin  
D) troponin and tropomyosin

21. A substance produced during oxygen debt is
- A) lactic acid
  - B) calcium phosphate
  - C) acetylcholine
  - D) glucose
22. Exercise results in
- A) dilation of blood vessels
  - B) a decrease in the number of mitochondria
  - C) muscle atrophy
  - D) an increase in the resting heart rate
23. Pushing the feet against the floor is an example of a(n)
- A) isometric contraction
  - B) muscle tone
  - C) isotonic contraction
  - D) isometric and isotonic contraction
24. A muscle that raises a body part is a(n)
- A) flexor
  - B) levator
  - C) adductor
  - D) superioris
25. Which of the following is NOT a muscle of the abdomen?
- A) internal oblique
  - B) transversus abdominis
  - C) iliopsoas
  - D) rectus abdominis
26. A muscle that moves the head is the
- A) gracilis
  - B) sternocleidomastoid
  - C) serratus anterior
  - D) rotator cuff

27. The hamstring muscles act to
- A) extend the leg
  - B) flex the leg
  - C) flex the thigh
  - D) adduct the thigh
28. A sudden and painful involuntary contraction of a muscle is called a
- A) strain
  - B) spasm
  - C) sprain
  - D) fibrositis
29. Compare the location and function of the three types of muscle tissue. Be sure to include words like involuntary, striations, voluntary, multi-nucleated, intercalated discs, one nucleus, and smooth.
30. A new drug blocks the release of acetylcholine from neuron endings. The mad scientist Dr. C takes the drug and then tries to move her arm. What will happen? Discuss the role of acetylcholine in muscle contraction in your answer.
31. JL is sitting in a chair wearing very heavy boots. She slowly straightens her leg, raising her boot. A. Is this an isotonic or isometric contraction?