

Life; Ch. 13 Test; Bones & Muscles

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- _____ 1. What structure directs the activities of a cell?
 - a. nucleus
 - b. cytoplasm
 - c. cartilage
 - d. cell membrane
- _____ 2. Messages are carried back and forth between the brain and other parts of the body by
 - a. respiratory tissue.
 - b. nervous tissue.
 - c. the circulatory system.
 - d. digestive tissue.
- _____ 3. Which type of human body tissue can contract, or shorten?
 - a. nerve tissue
 - b. muscle tissue
 - c. connective tissue
 - d. epithelial tissue
- _____ 4. Which type of tissue lines your digestive track and allows you to digest and absorb the nutrients from food?
 - a. epithelial
 - b. connective
 - c. muscle
 - d. nervous
- _____ 5. The process by which an organism's internal environment is kept stable in spite of changes in the external environment is called
 - a. healing.
 - b. digestion.
 - c. homeostasis.
 - d. respiration.
- _____ 6. No matter what the temperature of the air around you, your internal body temperature will be close to
 - a. 24°C.
 - b. 37°C.
 - c. 72°C.
 - d. 98°C.
- _____ 7. Which organ system makes blood cells?
 - a. skeletal system
 - b. nervous system
 - c. circulatory system
 - d. digestive system
- _____ 8. Which of the following is NOT a function of the skeleton?

- a. providing shape and support for the body
 - b. obtaining oxygen
 - c. protecting internal organs
 - d. producing blood cells
- _____ 9. The bones that form the backbone are called
- a. vertebrae.
 - b. metatarsals.
 - c. tibia.
 - d. carpals.
- _____ 10. What kind of motion is possible with a hinge joint?
- a. rotating
 - b. sliding
 - c. backward or forward
 - d. side to side
- _____ 11. A strong connective tissues that holds movable joints together is a
- a. cartilage.
 - b. ligament.
 - c. marrow.
 - d. vertebrae.
- _____ 12. Much of a newborn baby's skeleton is made of
- a. hard bone.
 - b. soft bone.
 - c. cartilage.
 - d. ligaments.
- _____ 13. The spaces in bones are filled with a soft connective tissue called
- a. blood.
 - b. water.
 - c. cartilage.
 - d. marrow.
- _____ 14. By eating dairy products, you are helping to maintain healthy bones because dairy products
- a. stimulate the growth of new bone.
 - b. enable nerve tissue to grow in bone.
 - c. help form the canals in bone.
 - d. are good sources of calcium.
- _____ 15. How does exercise help maintain healthy bones?
- a. by decreasing the need for calcium in the bones
 - b. by decreasing the need for phosphorus in the bones
 - c. by making bones grow stronger and denser
 - d. by making bones produce stronger outer membranes
- _____ 16. Beneath the outer membrane of bone there is a layer of
- a. blood vessels.
 - b. canals.
 - c. spongy bone.
 - d. compact bone.
- _____ 17. What is the best way to prevent osteoporosis?

- a. Exercise regularly and include calcium in your diet.
- b. Reduce exercise and add phosphorus to your diet.
- c. Eat more green vegetables and red meats.
- d. Get plenty of bedrest.

_____ 18. Which type of muscle is found only in the heart?

- a. voluntary muscle
- b. cardiac muscle
- c. smooth muscle
- d. soft muscle

_____ 19. Which type of muscle tires quickly during exercise?

- a. smooth muscle
- b. breathing muscle
- c. skeletal muscle
- d. cardiac muscle

_____ 20. How do pairs of skeletal muscles work together?

- a. Both muscles contract at the same time.
- b. Both muscles extend at the same time.
- c. While one muscle in the pair contracts, the other returns to its original length.
- d. One muscle in the pair pulls on a bone, while the second muscle pulls on the first muscle.

_____ 21. Skeletal muscles must work in pairs because

- a. muscle cells can only contract.
- b. muscle cells can only extend.
- c. it takes two muscles to move a bone in one direction.
- d. when muscles work in pairs, they tire less quickly.

_____ 22. Exercise is important for muscles because it

- a. prevents muscles from becoming tired.
- b. helps maintain strength and flexibility.
- c. gives muscles more energy.
- d. prevents muscle injuries.

_____ 23. If you exert a force of 20 newtons to push a desk 10 meters, how much work do you do on the desk?

- a. 200 N·m
- b. 30 N·m
- c. 10 N·m
- d. 100 N·m

_____ 24. Work equals force times

- a. energy.
- b. velocity.
- c. distance.
- d. mass.

_____ 25. What do machines do?

- a. change the amount of force you exert or the distance over which you exert the force
- b. increase the amount of work that is done

- c. decrease the amount of work that is done
 - d. eliminate friction
- _____ 26. How can a hockey stick be considered a machine?
 - a. It multiplies force.
 - b. It multiplies distance.
 - c. It changes direction.
 - d. It reduces friction.
- _____ 27. At the start of 400 m run your body releases adrenaline and carries more oxygen to the body cells. Your body is experiencing
 - a. dermis.
 - b. melanin.
 - c. osteoporosis.
 - d. stress.
- _____ 28. You are able to feel pain when you touch a hot surface because of your
 - a. skeletal and muscular systems.
 - b. nervous and integumentary systems.
 - c. nervous and circulatory systems.
 - d. integumentary and immune systems.
- _____ 29. As you push a door to open it, the door acts as a
 - a. first-class lever.
 - b. second-class lever.
 - c. third-class lever.
 - d. fourth-class lever.
- _____ 30. In a first-class lever, the fulcrum is located
 - a. behind the resistance force and the effort force.
 - b. above the resistance force and the effort force.
 - c. in front of the resistant force and the effort force.
 - d. between the resistance force and the effort force.

Modified True/False

Indicate whether the statement is true or false. If false, change the identified word or phrase to make the statement true.

- _____ 31. Tissues perform more complex jobs than organs. _____
- _____ 32. The process of homeostasis keeps the body's internal environment stable.

- _____ 33. Shivering helps to cool your body. _____
- _____ 34. The bones that make up your backbone are called tarsals. _____
- _____ 35. One function of your ligament is to help protect your organs. _____
- _____ 36. Blood cells are produced in red bone marrow. _____
- _____ 37. A well-balanced diet that includes the mineral calcium can help prevent osteoporosis.

- _____ 38. To bend a joint, one muscle extends while another muscle returns to its original length.

- _____ 39. Exercise helps to keep muscles healthy because exercise makes muscles thicker.

- _____ 40. Lifting a 25-N bag of sugar 1 meter above the floor requires 25 N·m of work.

Completion

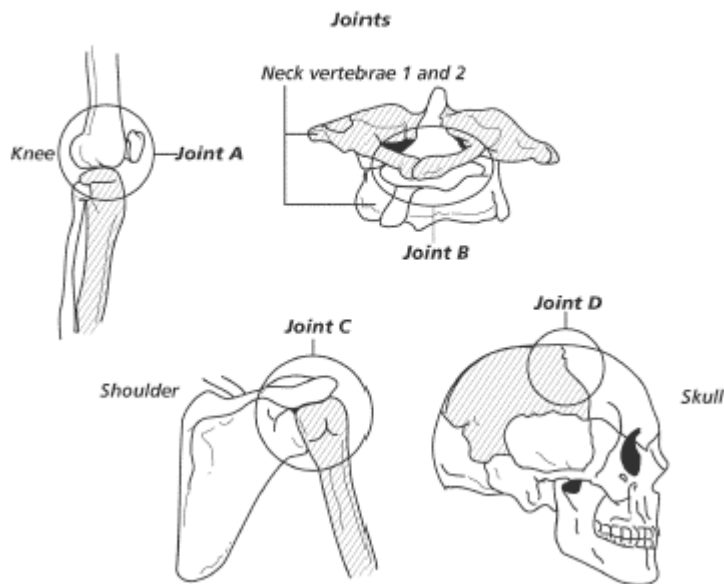
Complete each statement.

41. Organs join to form a(n) _____ that performs a major function.
42. The material within a cell apart from the nucleus is the _____.
43. Homeostasis can be upset by _____, which is the reaction of the body and mind to a threatening, challenging, or disturbing event.
44. The _____ protects the delicate tissue of the brain.
45. A kind of connective tissue called a(n) _____ holds together the bones in movable joints.
46. Your wrist is able to bend and flex because it has a(n) _____ joint.
47. One way to keep bones healthy is to get regular _____ in the form of activities such as running.
48. Bones are strong and hard because they contain the minerals _____ and phosphorus.
49. As an infant grows, hard bone replaces most of the _____ that forms an infant's skeleton.
50. The type of involuntary muscle that moves food through the digestive tract is called _____ muscle.
51. A muscle is attached to a bone by a connective tissue called a(n) _____.
52. Muscle tissue _____, to make body parts move.
53. The amount of work done in lifting a 25-N bag of sugar 2 meters is the same as lifting two 25-N bags of sugar _____ meter(s).
54. The force applied to a machine is called the _____ force.
55. A machine makes work easier by multiplying force or _____, or by changing direction.
56. Both the respiratory system and the circulatory system rely on the _____ system, which automatically produces movement in the heart and the lungs.
57. The elbow and knee are examples of fulcrums for _____ levers in the body.

58. When you become sick with a virus, your _____ system prompts white blood cells to help create antibodies.
59. A runner at the starting line of a race is likely to experience a rush of the hormone adrenaline, released by the _____ system, as the race begins.
60. The filters in a wastewater treatment plant, which removes wastes from water, might be considered similar to _____ in the kidneys, which filter wastes from blood.

Short Answer

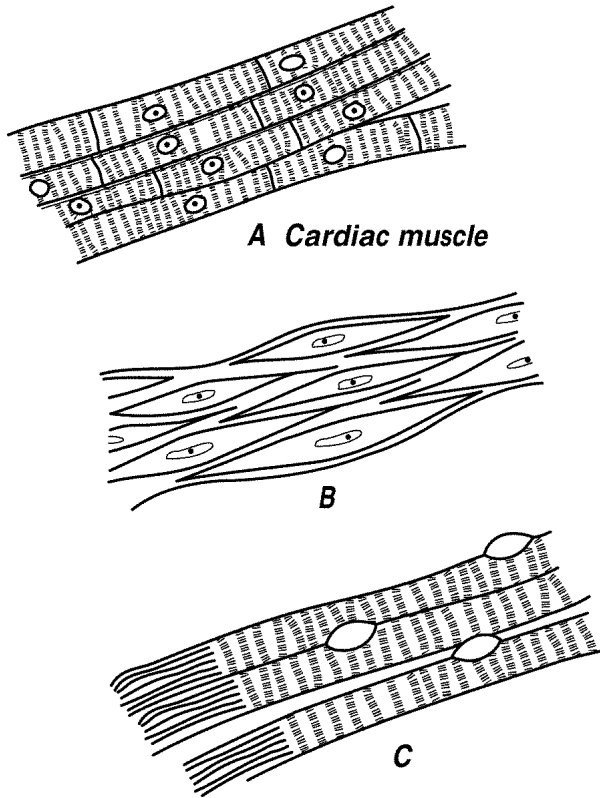
Use the diagram to answer each question.



61. Which type of joint is Joint A?
62. Which type of joint is Joint C?
63. Which joints are movable? Which are immovable?
64. Which joint is a pivot joint?
65. What kind of motion does Joint A allow?
66. Which joint provides the greatest range of movement?

Use the diagram to answer each question.

Types of Muscle Tissue



67. Where in the body is muscle type A (cardiac muscle) found?
68. Which type of muscle is indicated by B?
69. Which type of muscle is indicated by C?
70. Which type of muscle tissue — A, B, or C — is found in the stomach? What is this type of muscle tissue called?
71. Tell whether each type of muscle tissue is voluntary or involuntary.
72. When you use a pencil for writing, which type of muscle — A, B, or C — moves your fingers?

Essay

73. List and describe the four levels of organization of the human body.
74. What is homeostasis? What is its importance in the human body?
75. Name three bones that protect internal organs and name the organs they protect.
76. Are bones dead or alive? Explain your answer.

77. Explain how the biceps and triceps muscles work as a pair to bend and straighten the arm at the elbow.
78. You push a food tray 1.5 m along a cafeteria table with a constant force of 18 N. How much work do you do?
79. Identify a joint in the body that serves as the fulcrum of a first-class lever, and explain why it is classified this way.
80. Give an example of the ways in which organ systems work together to maintain the human body. Draw connections between at least three organ systems.

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Answer Section

MULTIPLE CHOICE

1. ANS: A PTS: 1 DIF: L1
OBJ: CaLS.13.1.1 Identify the levels of organization in the body.
STA: S 7.1.c BLM: knowledge
2. ANS: B PTS: 1 DIF: L1
OBJ: CaLS.13.1.1 Identify the levels of organization in the body.
STA: S 7.5.a BLM: knowledge
3. ANS: B PTS: 1 DIF: L1
OBJ: CaLS.13.1.1 Identify the levels of organization in the body.
STA: S 7.5.c BLM: knowledge
4. ANS: A PTS: 1 DIF: L1
OBJ: CaLS.13.1.1 Identify the levels of organization in the body.
STA: S 7.5.a BLM: knowledge
5. ANS: C PTS: 1 DIF: L1
OBJ: CaLS.13.1.3 Define homeostasis. STA: S 7.5.b BLM: knowledge
6. ANS: B PTS: 1 DIF: L1
OBJ: CaLS.13.1.3 Define homeostasis. STA: S 7.5.b BLM: knowledge
7. ANS: A PTS: 1 DIF: L2
OBJ: CaLS.13.2.1 Identify the functions of the skeleton. STA: S 7.5.b
BLM: knowledge
8. ANS: B PTS: 1 DIF: L1
OBJ: CaLS.13.2.1 Identify the functions of the skeleton. STA: S 7.5.c
BLM: knowledge
9. ANS: A PTS: 1 DIF: L1
OBJ: CaLS.13.2.1 Identify the functions of the skeleton. STA: S 7.5.c
BLM: knowledge
10. ANS: C PTS: 1 DIF: L1
OBJ: CaLS.13.2.2 Explain the role that joints play in the body. STA: S 7.6.h
BLM: knowledge
11. ANS: B PTS: 1 DIF: L1
OBJ: CaLS.13.2.2 Explain the role that joints play in the body. STA: S 7.5.c
BLM: knowledge
12. ANS: C PTS: 1 DIF: L1
OBJ: CaLS.13.2.3 Describe the characteristics of bone and how to keep bones strong and healthy.
STA: S 7.5.a BLM: knowledge
13. ANS: D PTS: 1 DIF: L1
OBJ: CaLS.13.2.3 Describe the characteristics of bone and how to keep bones strong and healthy.
STA: S 7.5.a BLM: knowledge

14. ANS: D PTS: 1 DIF: L1
OBJ: CaLS.13.2.3 Describe the characteristics of bone and how to keep bones strong and healthy.
STA: S 7.5.b BLM: knowledge
15. ANS: C PTS: 1 DIF: L1
OBJ: CaLS.13.2.3 Describe the characteristics of bone and how to keep bones strong and healthy.
STA: S 7.5.b BLM: knowledge
16. ANS: D PTS: 1 DIF: L1
OBJ: CaLS.13.2.3 Describe the characteristics of bone and how to keep bones strong and healthy.
STA: S 7.5.a BLM: knowledge
17. ANS: A PTS: 1 DIF: L1
OBJ: CaLS.13.2.3 Describe the characteristics of bone and how to keep bones strong and healthy.
STA: S 7.5.b BLM: knowledge
18. ANS: B PTS: 1 DIF: L1
OBJ: CaLS.13.3.1 Identify the types of muscles found in the body.
STA: S 7.5.b BLM: knowledge
19. ANS: C PTS: 1 DIF: L1
OBJ: CaLS.13.3.1 Identify the types of muscles found in the body.
STA: S 7.5.c BLM: knowledge
20. ANS: C PTS: 1 DIF: L1
OBJ: CaLS.13.3.2 Explain why skeletal muscles work in pairs. STA: S 7.5.c
BLM: knowledge
21. ANS: A PTS: 1 DIF: L1
OBJ: CaLS.13.3.2 Explain why skeletal muscles work in pairs. STA: S 7.5.c
BLM: knowledge
22. ANS: B PTS: 1 DIF: L1
OBJ: CaLS.13.3.2 Explain why skeletal muscles work in pairs. STA: S 7.5.c
BLM: knowledge
23. ANS: A PTS: 1 DIF: L2
OBJ: CaLS.13.4.1 Explain how force and work are related. STA: S 7.6.h
BLM: analysis
24. ANS: C PTS: 1 DIF: L1
OBJ: CaLS.13.4.1 Explain how force and work are related. STA: S 7.6.h
BLM: knowledge
25. ANS: A PTS: 1 DIF: L2
OBJ: CaLS.13.4.2 Explain how a lever makes work easier. STA: S 7.6.h | S 7.6.i
BLM: knowledge
26. ANS: B PTS: 1 DIF: L2
OBJ: CaLS.13.4.2 Explain how a lever makes work easier. STA: S 7.6.h | S 7.6.i
BLM: comprehension
27. ANS: D PTS: 1 DIF: L2
OBJ: CaLS.13.1.3 Define homeostasis. STA: S 7.5.a BLM: comprehension

28. ANS: B PTS: 1 DIF: L2
OBJ: CaLS.13.1.2 List the systems of the human body and their functions.
STA: S 7.5.a BLM: application
29. ANS: B PTS: 1 DIF: L3
OBJ: CaLS.13.4.3 Describe how bones and muscles function as levers in the body.
STA: S 7.6.i BLM: application
30. ANS: D PTS: 1 DIF: L2
OBJ: CaLS.13.4.3 Describe how bones and muscles function as levers in the body.
STA: S 7.6.i BLM: comprehension

MODIFIED TRUE/FALSE

31. ANS: F, less

PTS: 1 DIF: L2
OBJ: CaLS.13.1.1 Identify the levels of organization in the body.
STA: S 7.5.a BLM: comprehension
32. ANS: T PTS: 1 DIF: L1
OBJ: CaLS.13.1.3 Define homeostasis. STA: S 7.5.a BLM: knowledge
33. ANS: F, sweating

PTS: 1 DIF: L1 OBJ: CaLS.13.1.3 Define homeostasis.
STA: S 7.5.a BLM: knowledge
34. ANS: F, vertebrae

PTS: 1 DIF: L1
OBJ: CaLS.13.2.1 Identify the functions of the skeleton. STA: S 7.5.a
BLM: knowledge
35. ANS: F, skeleton

PTS: 1 DIF: L1
OBJ: CaLS.13.2.1 Identify the functions of the skeleton. STA: S 7.5.a
BLM: knowledge
36. ANS: T PTS: 1 DIF: L1
OBJ: CaLS.13.2.3 Describe the characteristics of bone and how to keep bones strong and healthy.
STA: S 7.5.b BLM: knowledge
37. ANS: T PTS: 1 DIF: L1
OBJ: CaLS.13.2.3 Describe the characteristics of bone and how to keep bones strong and healthy.
STA: S 7.5.b BLM: knowledge
38. ANS: F, contracts

PTS: 1 DIF: L1
OBJ: CaLS.13.3.2 Explain why skeletal muscles work in pairs. STA: S 7.5.c

- BLM: knowledge
39. ANS: T PTS: 1 DIF: L1
OBJ: CaLS.13.3.2 Explain why skeletal muscles work in pairs. STA: S 7.5.c
BLM: knowledge
40. ANS: T PTS: 1 DIF: L2
OBJ: CaLS.13.4.1 Explain how force and work are related. STA: S 7.6.h
BLM: analysis

COMPLETION

41. ANS: organ system
- PTS: 1 DIF: L1
OBJ: CaLS.13.1.1 Identify the levels of organization in the body.
STA: S 7.5.b BLM: knowledge
42. ANS: cytoplasm
- PTS: 1 DIF: L1
OBJ: CaLS.13.1.1 Identify the levels of organization in the body.
STA: S 7.5.a BLM: knowledge
43. ANS: stress
- PTS: 1 DIF: L1 OBJ: CaLS.13.1.3 Define homeostasis.
STA: S 7.5.a BLM: knowledge
44. ANS: skull
- PTS: 1 DIF: L1
OBJ: CaLS.13.2.1 Identify the functions of the skeleton. STA: S 7.5.c
BLM: knowledge
45. ANS: ligament
- PTS: 1 DIF: L1
OBJ: CaLS.13.2.2 Explain the role that joints play in the body. STA: S 7.5.c
BLM: knowledge
46. ANS: gliding
- PTS: 1 DIF: L1
OBJ: CaLS.13.2.2 Explain the role that joints play in the body. STA: S 7.5.c
BLM: knowledge
47. ANS: exercise
- PTS: 1 DIF: L1
OBJ: CaLS.13.2.3 Describe the characteristics of bone and how to keep bones strong and healthy.
STA: S 7.5.c BLM: knowledge

48. ANS: calcium

PTS: 1 DIF: L1

OBJ: CaLS.13.2.3 Describe the characteristics of bone and how to keep bones strong and healthy.

STA: S 7.5.c BLM: knowledge

49. ANS: cartilage

PTS: 1 DIF: L1

OBJ: CaLS.13.2.3 Describe the characteristics of bone and how to keep bones strong and healthy.

STA: S 7.5.c BLM: knowledge

50. ANS: smooth

PTS: 1 DIF: L1

OBJ: CaLS.13.3.1 Identify the types of muscles found in the body.

STA: S 7.5.b BLM: knowledge

51. ANS: tendon

PTS: 1 DIF: L1

OBJ: CaLS.13.3.1 Identify the types of muscles found in the body.

STA: S 7.5.c BLM: knowledge

52. ANS: contracts

PTS: 1 DIF: L1

OBJ: CaLS.13.3.2 Explain why skeletal muscles work in pairs. STA: S 7.5.c

BLM: knowledge

53. ANS: 1

PTS: 1 DIF: L2

OBJ: CaLS.13.4.1 Explain how force and work are related. STA: S 7.6.i

BLM: analysis

54. ANS: effort

PTS: 1 DIF: L1

OBJ: CaLS.13.4.2 Explain how a lever makes work easier. STA: S 7.6.i

BLM: knowledge

55. ANS: distance

PTS: 1 DIF: L2

OBJ: CaLS.13.4.2 Explain how a lever makes work easier. STA: S 7.6.h | S 7.6.i

BLM: comprehension

56. ANS: muscular

PTS: 1 DIF: L3

OBJ: CaLS.13.1.2 List the systems of the human body and their functions.

- STA: S 7.5.a BLM: synthesis
57. ANS: third-class
- PTS: 1 DIF: L3
OBJ: CaLS.13.4.3 Describe how bones and muscles function as levers in the body.
STA: S 7.6.h BLM: application
58. ANS: immune
- PTS: 1 DIF: L2
OBJ: CaLS.13.1.2 List the systems of the human body and their functions.
STA: S 7.5.b BLM: comprehension
59. ANS: endocrine
- PTS: 1 DIF: L2
OBJ: CaLS.13.1.2 List the systems of the human body and their functions.
STA: S 7.5.a BLM: application
60. ANS: nephrons
- PTS: 1 DIF: L3
OBJ: CaLS.13.1.2 List the systems of the human body and their functions.
STA: S 7.5.a BLM: application

SHORT ANSWER

61. ANS:
hinge
- PTS: 1 DIF: L2
OBJ: CaLS.13.2.2 Explain the role that joints play in the body. STA: S 7.5.c
BLM: analysis
62. ANS:
ball-and-socket
- PTS: 1 DIF: L2
OBJ: CaLS.13.2.2 Explain the role that joints play in the body. STA: S 7.5.c
BLM: analysis
63. ANS:
A through C are movable; D is immovable.
- PTS: 1 DIF: L2
OBJ: CaLS.13.2.2 Explain the role that joints play in the body. STA: S 7.5.c
BLM: analysis
64. ANS:
B

PTS: 1 DIF: L2
OBJ: CaLS.13.2.2 Explain the role that joints play in the body. STA: S 7.5.c
BLM: analysis

65. ANS:
backward and forward

PTS: 1 DIF: L2
OBJ: CaLS.13.2.2 Explain the role that joints play in the body. STA: S 7.5.c
BLM: analysis

66. ANS:
C

PTS: 1 DIF: L2
OBJ: CaLS.13.2.2 Explain the role that joints play in the body. STA: S 7.5.c
BLM: analysis

67. ANS:
the heart

PTS: 1 DIF: L2
OBJ: CaLS.13.3.1 Identify the types of muscles found in the body.
STA: S 7.5.c BLM: analysis

68. ANS:
smooth muscle

PTS: 1 DIF: L2
OBJ: CaLS.13.3.1 Identify the types of muscles found in the body.
STA: S 7.5.c BLM: analysis

69. ANS:
skeletal muscle

PTS: 1 DIF: L2
OBJ: CaLS.13.3.1 Identify the types of muscles found in the body.
STA: S 7.5.c BLM: analysis

70. ANS:
B, smooth muscle

PTS: 1 DIF: L2
OBJ: CaLS.13.3.1 Identify the types of muscles found in the body.
STA: S 7.5.c BLM: analysis

71. ANS:
A and B are involuntary. C is voluntary.

PTS: 1 DIF: L2
OBJ: CaLS.13.3.1 Identify the types of muscles found in the body.
STA: S 7.5.c BLM: analysis

72. ANS:

C

PTS: 1 DIF: L2
OBJ: CaLS.13.3.1 Identify the types of muscles found in the body.
STA: S 7.5.c BLM: application

ESSAY

73. ANS:

Cells are the basic units of structure and function of living things. Tissues are groups of cells that are similar in structure and perform the same function. Organs are groups of tissues that work together to perform a complex function. Organ systems are groups of organs that work together to perform a major function.

PTS: 1 DIF: L2
OBJ: CaLS.13.1.1 Identify the levels of organization in the body.
STA: S 7.5.b BLM: comprehension

74. ANS:

Homeostasis is the body's tendency to maintain a stable internal balance. It is a process that keeps the body's internal environment stable in spite of changes in the external environment.

PTS: 1 DIF: L2 OBJ: CaLS.13.1.3 Define homeostasis.
STA: S 7.5.b BLM: comprehension

75. ANS:

The skull protects the brain. The breastbone and ribs protect the heart and lungs. Students might also mention that the vertebrae protect the spinal cord.

PTS: 1 DIF: L2
OBJ: CaLS.13.2.1 Identify the functions of the skeleton. STA: S 7.5.b
BLM: comprehension

76. ANS:

Bones are alive. They are made up of living cells and tissues such as blood and nerves. Bones form new bone tissue as a person grows or when a bone is broken. Dead tissue does not have these characteristics.

PTS: 1 DIF: L3
OBJ: CaLS.13.2.3 Describe the characteristics of bone and how to keep bones strong and healthy.
STA: S 7.5.c BLM: synthesis

77. ANS:

The biceps muscle in the upper arm contracts to bend the elbow. At the same time, the triceps muscle extends and returns to its original length. To straighten the arm, the triceps contracts while the biceps returns to its original length.

PTS: 1 DIF: L2

OBJ: CaLS.13.3.2 Explain why skeletal muscles work in pairs. STA: S 7.5.c
BLM: application

78. ANS:

$$Work = Force \times Distance = 18 \text{ N} \times 1.5 \text{ m} = 27 \text{ N}\cdot\text{m}$$

PTS: 1 DIF: L2

OBJ: CaLS.13.4.1 Explain how force and work are related. STA: S 7.6.i

BLM: analysis

79. ANS:

Sample answer: The joint at the top of the neck is the fulcrum for a first-class lever. When you tilt your head up, the joint serves as the fulcrum, the muscles at the back of the neck contribute the effort force, and the resistant force comes from the weight of the head. The fulcrum is located between the effort force and the resistant force, which means the system is a first-class lever.

PTS: 1 DIF: L2

OBJ: CaLS.13.4.3 Describe how bones and muscles function as levers in the body.

STA: S 7.6.h BLM: comprehension

80. ANS:

Sample answer: The muscular, respiratory, and circulatory systems are interdependent. The respiratory system provides oxygen to the blood, which is carried throughout the body by the circulatory system. Some of this oxygen is carried to muscle cells so that they can function. The circulatory system also brings food to muscle cells, giving them the energy they need to perform.

PTS: 1 DIF: L3

OBJ: CaLS.13.1.2 List the systems of the human body and their functions.

STA: S 7.5.a | S 7.5.b BLM: evaluation