

Life; Ch. 14 Test; Circulation & Respiration

Multiple Choice

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

- _____ 1. Which of these is NOT a function of the cardiovascular system?
 - a. transporting cells that attack disease-causing microorganisms
 - b. carrying oxygen, glucose, and other needed materials to cells
 - c. carrying waste products away from cells
 - d. controlling many body processes by means of chemicals
- _____ 2. Needed substances are carried to the body cells by
 - a. enzymes.
 - b. blood.
 - c. water.
 - d. food.
- _____ 3. The function of the atria is to
 - a. pump blood to the lungs.
 - b. pump blood to the body.
 - c. receive blood that comes into the heart.
 - d. deliver oxygen to body tissues.
- _____ 4. Which of these heart structures prevents blood from flowing backward?
 - a. aorta
 - b. valve
 - c. septum
 - d. coronary artery
- _____ 5. When the ventricles contract, blood is pumped
 - a. out of the heart.
 - b. into the heart.
 - c. through the septum.
 - d. into veins.
- _____ 6. When blood flows into the right atrium from the body, it contains
 - a. little oxygen and a lot of carbon dioxide.
 - b. a lot of oxygen and little carbon dioxide.
 - c. a lot of both oxygen and carbon dioxide.
 - d. little of either oxygen or carbon dioxide.
- _____ 7. Which chamber of the heart pumps oxygen-poor blood to the lungs?
 - a. left atrium
 - b. right atrium
 - c. left ventricle
 - d. right ventricle
- _____ 8. How many loops does the human circulatory system contain?
 - a. one
 - b. two
 - c. three

- d. four
- _____ 9. In which vessels are materials exchanged between the blood and the body cells?
 - a. veins
 - b. arteries
 - c. capillaries
 - d. lymphatic vessels
- _____ 10. What causes blood pressure?
 - a. the force with which the ventricles contract
 - b. the rate at which blood flows through the heart
 - c. the speed at which oxygen is returned to blood in the lungs
 - d. the strength of the muscles in the walls of the capillaries
- _____ 11. What layer or layers of veins have muscles?
 - a. the outer layer only
 - b. the middle layer only
 - c. the inner layer only
 - d. all three layers
- _____ 12. If a person's blood lacked platelets, what process could not take place?
 - a. carrying oxygen to cells
 - b. carrying glucose to cells
 - c. clotting of blood
 - d. transfusing of blood
- _____ 13. A heart attack affects heart cells by
 - a. cutting off blood flow and oxygen and causing cells to die.
 - b. creating a buildup of fatty substances such as cholesterol within cells.
 - c. destroying white blood cells.
 - d. preventing the ventricles from contracting.
- _____ 14. What is the blood type of a person whose plasma contains only anti-B clumping proteins?
 - a. type A
 - b. type B
 - c. type AB
 - d. type O
- _____ 15. What eventually happens to fluid that leaks from capillaries into the surrounding tissues?
 - a. It undergoes chemical reactions and becomes fatty tissue.
 - b. It replaces dead body cells.
 - c. It returns to the blood through the lymphatic system.
 - d. It replaces dead red blood cells.
- _____ 16. What is the function of lymph nodes?
 - a. to trap disease-causing bacteria
 - b. to make new lymph
 - c. to transfer oxygen
 - d. to return lymph to the bloodstream
- _____ 17. Which substances are produced during respiration?
 - a. water and oxygen
 - b. oxygen and red blood cells
 - c. carbon dioxide and water

- d. carbon dioxide and red blood cells
- _____ 18. What term do scientists use to describe the chemical process in which oxygen and glucose react to release energy inside body cells?
 - a. inhaling
 - b. exhaling
 - c. breathing
 - d. respiration
- _____ 19. What is the name of the small flap of tissue that seals off the trachea during swallowing?
 - a. pharynx
 - b. larynx
 - c. epiglottis
 - d. alveoli
- _____ 20. Which parts of the respiratory system divide into smaller and smaller tubes in a pattern that resembles the branches of a tree?
 - a. pharynx
 - b. trachea
 - c. bronchi
 - d. epiglottis
- _____ 21. Hairlike structures that line the nasal cavities and trachea are called
 - a. cilia.
 - b. mucus.
 - c. bronchi.
 - d. capillaries.
- _____ 22. Where in the respiratory system does gas exchange occur?
 - a. in the heart
 - b. in the alveoli
 - c. in the pharynx
 - d. in the trachea
- _____ 23. During gas exchange, which substance moves from the alveoli into the blood?
 - a. carbon dioxide
 - b. oxygen
 - c. water
 - d. nitrogen
- _____ 24. What happens to cause air to be exhaled from the lungs?
 - a. The rib muscles contract and move outward.
 - b. The chest cavity expands and grows larger.
 - c. The diaphragm relaxes and moves upward.
 - d. The lungs contract and then expand.
- _____ 25. What produces a person's voice?
 - a. the lungs
 - b. the diaphragm
 - c. the vocal cords
 - d. the alveoli
- _____ 26. Why is atherosclerosis especially serious when it develops in the coronary arteries?
 - a. It can then go on to affect the aorta.

- b. It can make red blood cells die.
 - c. It can lead to a heart attack.
 - d. It can limit the functioning of white blood cells.
- _____ 27. Hypertension is a condition in which
- a. blood pressure is consistently lower than normal.
 - b. blood pressure is consistently higher than normal.
 - c. fatty deposits build up on artery walls.
 - d. some of the heart muscle dies.
- _____ 28. Why is atherosclerosis especially serious when it develops in the coronary arteries?
- a. It can then go on to affect the aorta.
 - b. It can make red blood cells die.
 - c. It can lead to a heart attack.
 - d. It can limit the functioning of white blood cells.
- _____ 29. Over time, smoking can irritate the breathing passages, which may become clogged with mucus. This condition is called
- a. bronchitis.
 - b. emphysema.
 - c. lung cancer.
 - d. heart attacks.
- _____ 30. A tumor that develops in the lungs may be a sign of
- a. bronchitis.
 - b. lung cancer.
 - c. heart disease.
 - d. emphysema.

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. The cardiovascular system consists of the heart, blood vessels, and lymph.

- _____ 32. The two upper chambers of the heart are called atria. _____
- _____ 33. The right ventricle pumps blood to the lungs. _____
- _____ 34. As blood moves away from the heart, blood pressure increases. _____
- _____ 35. White blood cells are the most numerous type of cells in whole blood.

- _____ 36. People with blood type O can safely receive blood transfusions from people with blood type O.

- _____ 37. Lymph nodes may enlarge when they are helping the body fight an infection.

- _____ 38. The respiratory system removes oxygen and water from the body. _____

- ____ 39. Oxygen and carbon dioxide are exchanged in capillaries that surround tiny sacs called bronchi.

- ____ 40. In gas exchange, oxygen passes from the alveoli into the blood. _____

Completion

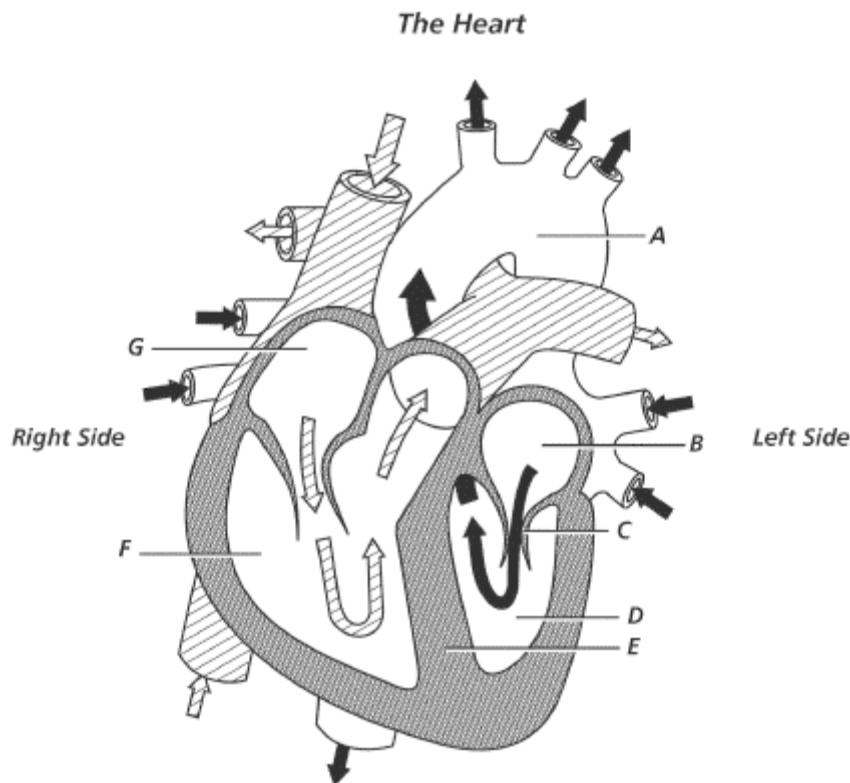
Complete each statement.

41. The circulatory system carries the needed materials oxygen and _____ to the body cells.
42. The group of cells called the _____ regulates the rate at which the heart beats.
43. A flap of tissue called a(n) _____ separates the right atrium from the right ventricle.
44. Blood that contains large amounts of carbon dioxide flows from the body into the _____ atrium of the heart.
45. A sphygmomanometer measures _____.
46. The force with which the _____ contract causes blood pressure.
47. Fibrin is produced when the blood components called _____ start a chain reaction that produces a blood clot.
48. The marker molecules on red blood cells determine a person's _____.
49. Fluid that has leaked out of capillaries is returned to the blood by the _____ system.
50. Fluid from the blood that enters lymphatic vessels is known as _____.
51. The movement of air into and out of the lungs is called _____.
52. The process in which energy is released from glucose is called cellular _____.
53. After flowing through the nasal cavities, air enters the _____, or throat.
54. Dust in air that enters the nose is trapped by a sticky substance called _____.
55. Carbon dioxide and _____ pass from the blood into the alveoli.
56. Your voice is produced by the rapid vibration of air molecules rushing through the opening of the _____.
57. The combined action of your rib muscles and your _____ increase and decrease the size of your chest cavity, allowing inhalation and exhalation.
58. A high-fat diet and sedentary lifestyle might lead to _____ in the coronary arteries.
59. People with hemophilia, a genetic disorder that prevents clotting of the blood, lack the ability to produce the protein _____.

60. _____ is an infection that causes the alveoli to fill with fluid, impairing their ability to exchange oxygen and carbon dioxide.

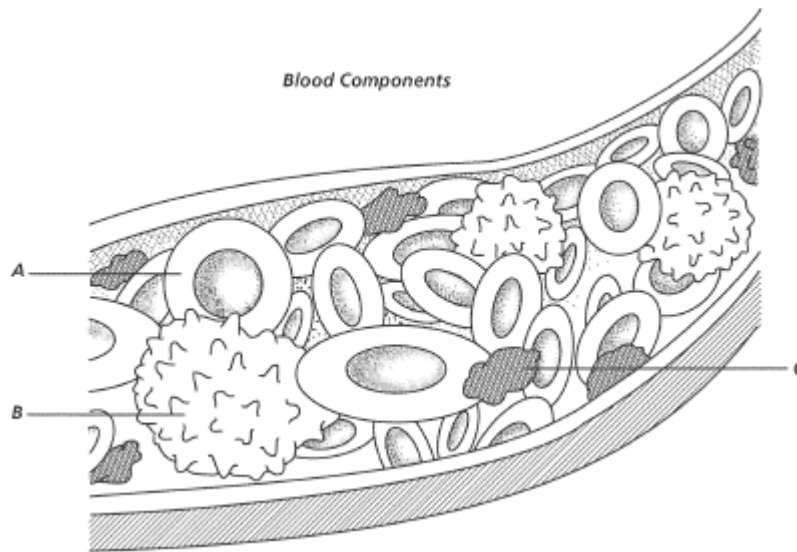
Short Answer

Use the diagram to answer each question.



61. What is the name for the structure labeled A? To which locations does it carry blood?
62. Identify structure B.
63. Identify structure G. Give the letter and name of the structure into which blood flows after leaving G.
64. What is the structure labeled C? What is its function?
65. Identify the structure labeled D. When blood enters structure D, is the blood low in oxygen or high in oxygen? Explain.
66. Identify structure E. What would happen to a person who had a hole in this structure?

Use the diagram to answer each question.



67. Identify the type of cell shown by A.
68. What is the function of the type of cell indicated by A?
69. What is the function of the type of cell indicated by B? If the body did not have this type of cell, what would probably happen?
70. What blood component is shown by C? In what body process is it important?
71. Which type of cell does blood contain more of—A or B?
72. Which major blood component is not labeled in the diagram?

Essay

73. Describe the role of the cardiovascular system in helping the body get rid of carbon dioxide.
74. What is meant by the “two loops” pattern of blood flow? Explain your answer.
75. Describe how the muscles in an artery regulate blood flow.
76. Explain why people with type AB blood can accept transfusions of any type blood.
77. Explain where the lymph was before it entered the lymphatic system. Then explain how the lymphatic system returns lymph to the bloodstream.
78. Explain the difference between breathing and respiration.
79. Anemia is a severe iron deficiency. Explain why a person suffering from anemia might feel constantly tired and short of breath.
80. What is bronchitis? Describe the effects of bronchitis.

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Answer Section

MULTIPLE CHOICE

1. ANS: D PTS: 1 DIF: L1
OBJ: CaLS.14.1.1 Explain the functions of the cardiovascular system.
STA: S 7.5.a BLM: knowledge
2. ANS: B PTS: 1 DIF: L1
OBJ: CaLS.14.1.1 Explain the functions of the cardiovascular system.
STA: S 7.5.a BLM: knowledge
3. ANS: C PTS: 1 DIF: L2
OBJ: CaLS.14.1.1 Explain the functions of the cardiovascular system.
STA: S 7.6.j BLM: comprehension
4. ANS: B PTS: 1 DIF: L1
OBJ: CaLS.14.1.2 Describe the function and structure of the heart.
STA: S 7.6.j BLM: knowledge
5. ANS: A PTS: 1 DIF: L1
OBJ: CaLS.14.1.2 Describe the function and structure of the heart.
STA: S 7.6.j BLM: knowledge
6. ANS: A PTS: 1 DIF: L2
OBJ: CaLS.14.1.3 Sequence the path taken by blood through the cardiovascular system.
STA: S 7.6.j BLM: comprehension
7. ANS: D PTS: 1 DIF: L1
OBJ: CaLS.14.1.3 Sequence the path taken by blood through the cardiovascular system.
STA: S 7.6.j BLM: knowledge
8. ANS: B PTS: 1 DIF: L1
OBJ: CaLS.14.1.3 Sequence the path taken by blood through the cardiovascular system.
STA: S 7.6.j BLM: knowledge
9. ANS: C PTS: 1 DIF: L1
OBJ: CaLS.14.1.4 Describe the functions and structures of arteries, capillaries, and veins.
STA: S 7.6.j BLM: knowledge
10. ANS: A PTS: 1 DIF: L1
OBJ: CaLS.14.1.4 Describe the functions and structures of arteries, capillaries, and veins.
STA: S 7.6.j BLM: knowledge
11. ANS: B PTS: 1 DIF: L2
OBJ: CaLS.14.1.4 Describe the functions and structures of arteries, capillaries, and veins.
STA: S 7.6.j BLM: comprehension
12. ANS: C PTS: 1 DIF: L2
OBJ: CaLS.14.2.1 Describe the components of blood. STA: S 7.5.b
BLM: comprehension
13. ANS: A PTS: 1 DIF: L2
OBJ: CaLS.14.2.1 Describe the components of blood. STA: S 7.5.a
BLM: comprehension

14. ANS: A PTS: 1 DIF: L2
OBJ: CaLS.14.2.2 Explain what determines the type of blood that a person can receive in a transfusion.
STA: S 7.5.b BLM: comprehension
15. ANS: C PTS: 1 DIF: L1
OBJ: CaLS.14.2.3 Name the structures and functions of the lymphatic system.
STA: S 7.5.a BLM: knowledge
16. ANS: A PTS: 1 DIF: L1
OBJ: CaLS.14.2.3 Name the structures and functions of the lymphatic system.
STA: S 7.5.a BLM: knowledge
17. ANS: C PTS: 1 DIF: L2
OBJ: CaLS.14.3.1 Describe the functions of the respiratory system.
STA: S 7.5.a BLM: comprehension
18. ANS: D PTS: 1 DIF: L2
OBJ: CaLS.14.3.1 Describe the functions of the respiratory system.
STA: S 7.5.a BLM: comprehension
19. ANS: C PTS: 1 DIF: L1
OBJ: CaLS.14.3.2 Identify the structures that air passes through as it travels to the lungs.
STA: S 7.5.a BLM: knowledge
20. ANS: C PTS: 1 DIF: L1
OBJ: CaLS.14.3.2 Identify the structures that air passes through as it travels to the lungs.
STA: S 7.5.a BLM: knowledge
21. ANS: A PTS: 1 DIF: L1
OBJ: CaLS.14.3.2 Identify the structures that air passes through as it travels to the lungs.
STA: S 7.5.a BLM: knowledge
22. ANS: B PTS: 1 DIF: L1
OBJ: CaLS.14.3.3 Describe what happens during gas exchange and breathing.
STA: S 7.5.a BLM: knowledge
23. ANS: B PTS: 1 DIF: L1
OBJ: CaLS.14.3.3 Describe what happens during gas exchange and breathing.
STA: S 7.5.a BLM: knowledge
24. ANS: C PTS: 1 DIF: L2
OBJ: CaLS.14.3.3 Describe what happens during gas exchange and breathing.
STA: S 7.5.a BLM: comprehension
25. ANS: C PTS: 1 DIF: L1
OBJ: CaLS.14.3.3 Describe what happens during gas exchange and breathing.
STA: S 7.5.a BLM: knowledge
26. ANS: C PTS: 1 DIF: L2
OBJ: CaLS.14.4.1 Identify some diseases of the cardiovascular system.
STA: S 7.5.b BLM: comprehension
27. ANS: B PTS: 1 DIF: L1
OBJ: CaLS.14.4.1 Identify some diseases of the cardiovascular system.
STA: S 7.5.b BLM: knowledge
28. ANS: C PTS: 1 DIF: L2
OBJ: CaLS.14.4.1 Identify some diseases of the cardiovascular system.
BLM: comprehension

29. ANS: A PTS: 1 DIF: L1
OBJ: CaLS.14.4.2 Explain how tobacco smoke may affect the body.
STA: S 7.5.b BLM: knowledge
30. ANS: B PTS: 1 DIF: L2
OBJ: CaLS.14.4.2 Explain how tobacco smoke may affect the body.
STA: S 7.5.b BLM: comprehension

MODIFIED TRUE/FALSE

31. ANS: F, blood
- PTS: 1 DIF: L1
OBJ: CaLS.14.1.1 Explain the functions of the cardiovascular system.
STA: S 7.5.a BLM: knowledge
32. ANS: T PTS: 1 DIF: L1
OBJ: CaLS.14.1.2 Describe the function and structure of the heart.
STA: S 7.6.j BLM: knowledge
33. ANS: T PTS: 1 DIF: L1
OBJ: CaLS.14.1.3 Sequence the path taken by blood through the cardiovascular system.
STA: S 7.6.j BLM: knowledge
34. ANS: F, decreases
- PTS: 1 DIF: L2
OBJ: CaLS.14.1.4 Describe the functions and structures of arteries, capillaries, and veins.
STA: S 7.6.j BLM: comprehension
35. ANS: F, Red
- PTS: 1 DIF: L1
OBJ: CaLS.14.2.1 Describe the components of blood. STA: S 7.5.a
BLM: knowledge
36. ANS: T PTS: 1 DIF: L2
OBJ: CaLS.14.2.2 Explain what determines the type of blood that a person can receive in a transfusion. STA: S 7.5.b BLM: comprehension
37. ANS: T PTS: 1 DIF: L2
OBJ: CaLS.14.2.3 Name the structures and functions of the lymphatic system.
STA: S 7.5.b BLM: comprehension
38. ANS: F, carbon dioxide
- PTS: 1 DIF: L1
OBJ: CaLS.14.3.1 Describe the functions of the respiratory system.
STA: S 7.5.a BLM: knowledge
39. ANS: F, alveoli
- PTS: 1 DIF: L1
OBJ: CaLS.14.3.2 Identify the structures that air passes through as it travels to the lungs.

- STA: S 7.5.a BLM: knowledge
40. ANS: T PTS: 1 DIF: L1
OBJ: CaLS.14.3.3 Describe what happens during gas exchange and breathing.
STA: S 7.5.a BLM: knowledge

COMPLETION

41. ANS: glucose

PTS: 1 DIF: L2
OBJ: CaLS.14.1.1 Explain the functions of the cardiovascular system.
STA: S 7.5.a BLM: comprehension
42. ANS: pacemaker

PTS: 1 DIF: L1
OBJ: CaLS.14.1.2 Describe the function and structure of the heart.
STA: S 7.6.j BLM: knowledge
43. ANS: valve

PTS: 1 DIF: L1
OBJ: CaLS.14.1.2 Describe the function and structure of the heart.
STA: S 7.6.j BLM: knowledge
44. ANS: right

PTS: 1 DIF: L2
OBJ: CaLS.14.1.3 Sequence the path taken by blood through the cardiovascular system.
STA: S 7.6.j BLM: comprehension
45. ANS: blood pressure

PTS: 1 DIF: L1
OBJ: CaLS.14.1.4 Describe the functions and structures of arteries, capillaries, and veins.
STA: S 7.6.j BLM: knowledge
46. ANS: ventricles

PTS: 1 DIF: L1
OBJ: CaLS.14.1.4 Describe the functions and structures of arteries, capillaries, and veins.
STA: S 7.6.j BLM: knowledge
47. ANS: platelets

PTS: 1 DIF: L2
OBJ: CaLS.14.2.1 Describe the components of blood. STA: S 7.5.a
BLM: comprehension
48. ANS: blood type

PTS: 1 DIF: L1

OBJ: CaLS.14.2.2 Explain what determines the type of blood that a person can receive in a transfusion.
STA: S 7.5.b BLM: knowledge

49. ANS: lymphatic

PTS: 1 DIF: L1

OBJ: CaLS.14.2.3 Name the structures and functions of the lymphatic system.

STA: S 7.5.a BLM: knowledge

50. ANS: lymph

PTS: 1 DIF: L1

OBJ: CaLS.14.2.3 Name the structures and functions of the lymphatic system.

STA: S 7.5.a BLM: knowledge

51. ANS: breathing

PTS: 1 DIF: L1

OBJ: CaLS.14.3.1 Describe the functions of the respiratory system.

STA: S 7.5.a BLM: knowledge

52. ANS: respiration

PTS: 1 DIF: L1

OBJ: CaLS.14.3.1 Describe the functions of the respiratory system.

STA: S 7.5.a BLM: knowledge

53. ANS: pharynx

PTS: 1 DIF: L2

OBJ: CaLS.14.3.2 Identify the structures that air passes through as it travels to the lungs.

STA: S 7.5.a BLM: comprehension

54. ANS: mucus

PTS: 1 DIF: L1

OBJ: CaLS.14.3.2 Identify the structures that air passes through as it travels to the lungs.

STA: S 7.5.a BLM: knowledge

55. ANS: water

PTS: 1 DIF: L1

OBJ: CaLS.14.3.3 Describe what happens during gas exchange and breathing.

STA: S 7.5.a BLM: knowledge

56. ANS: larynx

PTS: 1 DIF: L2

OBJ: CaLS.14.3.3 Describe what happens during gas exchange and breathing.

STA: S 7.5.a BLM: comprehension

57. ANS: diaphragm

PTS: 1 DIF: L2

OBJ: CaLS.14.3.3 Describe what happens during gas exchange and breathing.

STA: S 7.5.a BLM: comprehension

58. ANS: atherosclerosis

PTS: 1 DIF: L2

OBJ: CaLS.14.4.1 Identify some diseases of the cardiovascular system.

STA: S 7.5.b BLM: comprehension

59. ANS: fibrin.

PTS: 1 DIF: L3

OBJ: CaLS.14.2.1 Describe the components of blood.

STA: S 7.5.b

BLM: synthesis

60. ANS: Pneumonia

PTS: 1 DIF: L2

OBJ: CaLS.14.4.3 Identify respiratory diseases that result from infections or other physical conditions.

STA: S 7.5.b BLM: comprehension

SHORT ANSWER

61. ANS:

A is the aorta, which carries blood from the heart to the body.

PTS: 1 DIF: L2

OBJ: CaLS.14.1.2 Describe the function and structure of the heart. | CaLS.14.1.3 Sequence the path taken by blood through the cardiovascular system.

STA: S 7.6.j

BLM: application

62. ANS:

Structure B is the left atrium.

PTS: 1 DIF: L2

OBJ: CaLS.14.1.2 Describe the function and structure of the heart.

STA: S 7.6.j BLM: application

63. ANS:

G is the right atrium. After leaving G, blood flows into F, the right ventricle.

PTS: 1 DIF: L2

OBJ: CaLS.14.1.2 Describe the function and structure of the heart. | CaLS.14.1.3 Sequence the path taken by blood through the cardiovascular system.

STA: S 7.6.j

BLM: application

64. ANS:

Structure C is the valve that separates the left atrium from the left ventricle. Its function is to prevent blood from flowing backward from the ventricle into the atrium.

PTS: 1 DIF: L2

OBJ: CaLS.14.1.2 Describe the function and structure of the heart.

STA: S 7.6.j BLM: application

65. ANS:

D is the left ventricle. Blood entering the left ventricle is high in oxygen, because it has just come from the left atrium, which receives oxygen-rich blood from the lungs.

PTS: 1 DIF: L2

OBJ: CaLS.14.1.2 Describe the function and structure of the heart. | CaLS.14.1.3 Sequence the path taken by blood through the cardiovascular system.

STA: S 7.6.j

BLM: application

66. ANS:

Structure E is the septum. A hole in the septum would allow oxygen-poor blood to mix with oxygen-rich blood. As a result, less oxygen would go to body cells.

PTS: 1 DIF: L3

OBJ: CaLS.14.1.2 Describe the function and structure of the heart.

STA: S 7.5.b BLM: synthesis

67. ANS:

A is a red blood cell.

PTS: 1 DIF: L2

OBJ: CaLS.14.2.1 Describe the components of blood.

STA: S 7.5.a

BLM: application

68. ANS:

A, a red blood cell, carries oxygen throughout the body.

PTS: 1 DIF: L2

OBJ: CaLS.14.2.1 Describe the components of blood.

STA: S 7.5.a

BLM: application

69. ANS:

B is a white blood cell. If the body did not have white blood cells, its ability to fight disease would be weakened.

PTS: 1 DIF: L3

OBJ: CaLS.14.2.1 Describe the components of blood.

STA: S 7.5.b

BLM: synthesis

70. ANS:

C is a platelet. Platelets are important in the clotting of blood.

PTS: 1 DIF: L2

OBJ: CaLS.14.2.1 Describe the components of blood.

STA: S 7.5.a

BLM: application

71. ANS:

A, the red blood cell

PTS: 1 DIF: L2

OBJ: CaLS.14.2.1 Describe the components of blood.

STA: S 7.5.a

BLM: application

72. ANS:

plasma

PTS: 1

DIF: L3

OBJ: CaLS.14.2.1 Describe the components of blood.

STA: S 7.5.a

BLM: analysis

ESSAY

73. ANS:

Cells produce carbon dioxide as a waste product. The carbon dioxide passes from the cells into the blood. The cardiovascular system carries the carbon dioxide to the lungs. The carbon dioxide is exhaled.

PTS: 1

DIF: L2

OBJ: CaLS.14.1.1 Explain the functions of the cardiovascular system.

STA: S 7.5.a

BLM: comprehension

74. ANS:

The overall pattern of blood flow through the body is somewhat like a figure eight with the heart at the center where the two loops cross. In the first loop, blood travels from the heart to the lungs and then back to the heart. In the second loop, blood is pumped from the heart throughout the body and then returns to the heart.

PTS: 1

DIF: L2

OBJ: CaLS.14.1.3 Sequence the path taken by blood through the cardiovascular system.

STA: S 7.6.j

BLM: comprehension

75. ANS:

When the artery muscles contract, the opening in the artery becomes smaller. Less blood flows through them. When the artery muscles relax, the opening becomes larger. More blood flows through them.

PTS: 1

DIF: L2

OBJ: CaLS.14.1.4 Describe the functions and structures of arteries, capillaries, and veins.

STA: S 7.6.j

BLM: comprehension

76. ANS:

Some blood types react to certain marker molecules by clumping. People with type AB blood do not produce clumping chemicals that act against either A or B markers. Type O blood does not contain either A or B markers. Therefore, a person with group AB blood can accept a transfusion of any blood type, because no clumping will occur.

PTS: 1

DIF: L2

OBJ: CaLS.14.2.2 Explain what determines the type of blood that a person can receive in a transfusion.

STA: S 7.5.b

BLM: comprehension

77. ANS:

Before it entered the lymphatic system, the lymph was part of the blood. It then leaks out of blood vessels and bathes body tissues. The lymphatic system returns lymph to the bloodstream by emptying it into large veins in the chest.

PTS: 1

DIF: L2

OBJ: CaLS.14.2.3 Name the structures and functions of the lymphatic system.

STA: S 7.5.a

BLM: comprehension

78. ANS:

Breathing is the movement of air into and out of the lungs. Respiration, which is also called cellular respiration, is the process in which oxygen and glucose chemically react to release energy from glucose.

PTS: 1

DIF: L2

OBJ: CaLS.14.3.1 Describe the functions of the respiratory system.

STA: S 7.5.a

BLM: analysis

79. ANS:

Iron is needed for the production of the protein hemoglobin, which binds to oxygen so blood can transport the oxygen throughout the body. A person with anemia would not have enough iron to create needed hemoglobin. Without enough hemoglobin, the red blood cells would be unable to carry oxygen efficiently. Enough oxygen might not reach all the organs of the body. The lungs would have to work harder, and the anemic person would feel tired and short of breath.

PTS: 1

DIF: L3

OBJ: CaLS.14.2.1 Describe the components of blood.

STA: S 7.5.b

BLM: synthesis

80. ANS:

Bronchitis is a narrowing of small air passages. Bronchitis makes breathing difficult and is often accompanied by infections of the respiratory system. Eventually, bronchitis may permanently damage the breathing passages.

PTS: 1

DIF: L2

OBJ: CaLS.14.4.3 Identify respiratory diseases that result from infections or other physical conditions.

STA: S 7.5.b

BLM: comprehension