

Test Chapter 16 Circulation**Completion***Complete each sentence or statement.*

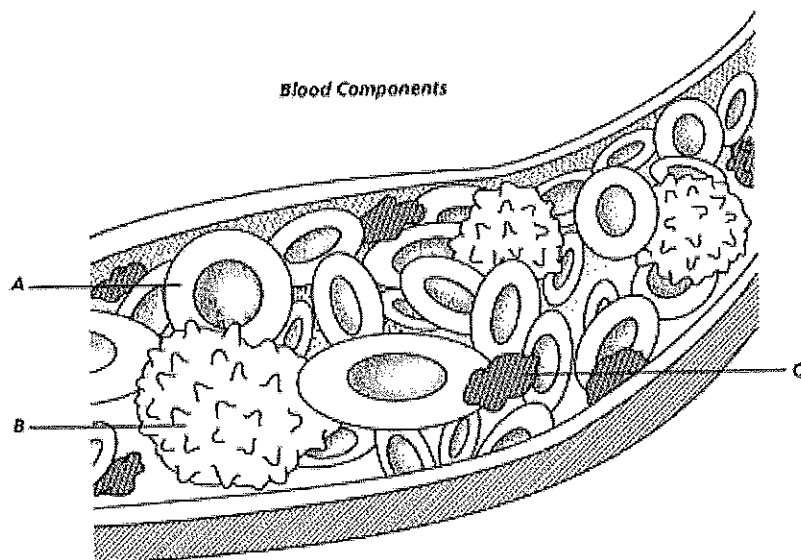
1. Fibrin is produced when the blood components called platelets start a chain reaction that produces a blood clot.
2. The marker molecules on red blood cells determine a person's blood type.
3. Blood returns to the heart from the body through blood vessels called veins.
4. A flap of tissue called a(n) valve separates the right atrium from the right ventricle.
5. Artery walls consist of three cell layers.
6. A person who receives the wrong type of blood during a blood transfusion may die.
7. Substances are exchanged between the blood and body cells in the blood vessels known as capillaries.
8. Blood that contains large amounts of carbon dioxide flows from the body into the right atrium of the heart.
9. Blood that is rich in oxygen leaves the heart through the blood vessel known as the aorta.
10. The group of cells called the pacemaker regulates the rate at which the heart beats.
11. Fluid that has leaked out of capillaries is returned to the blood by the lymphatic system.

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Short Answer

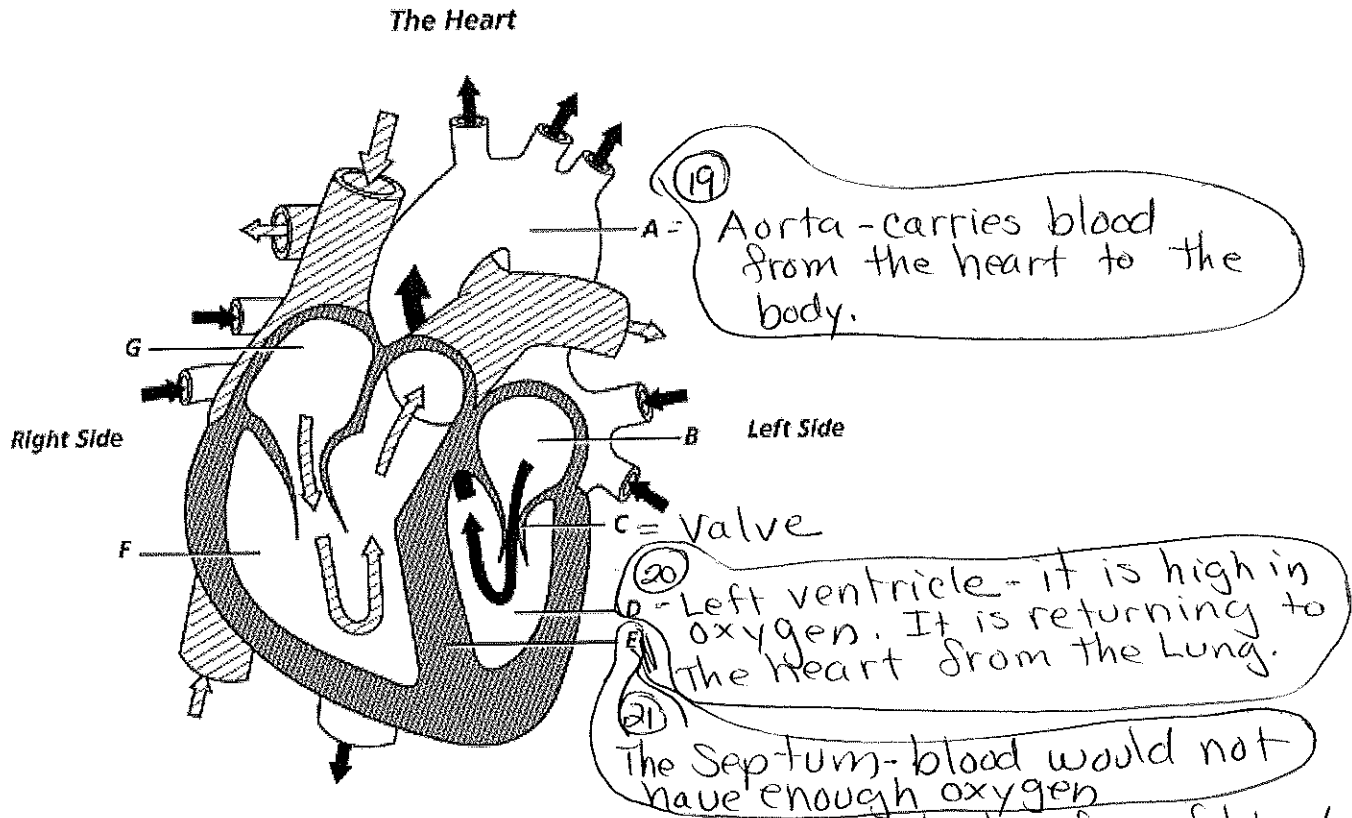
Use the diagram to answer each question.



14) B = white blood cell.
Fights disease
would get sick.

12. Which type of cell does blood contain more of—A or B? A - Red blood cell.
13. What is the function of the type of cell indicated by A? Red blood cell - gas exchange O_2/CO_2 .
14. 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? Above
15. Which major blood component is not labeled in the diagram? Plasma
16. Identify the type of cell shown by A. Red blood cell
17. What blood component is shown by C? In what body process is it important?
A platelet. Clotting of blood.

Use the diagram to answer each question.



18. What is the structure labeled C? What is its function? - Valve - prevents backflow of blood.
19. What is the name for the structure labeled A? To which locations does it carry blood?
Above
20. Identify the structure labeled D. When blood enters structure D, is the blood low in oxygen or high in oxygen? Explain. Above
21. Identify structure E. What would happen to a person who had a hole in this structure?
Above

Essay

- EP (22) What is meant by the "two loops" pattern of blood flow? Explain your answer.
23. Explain where the lymph was before it entered the lymphatic system. Then explain how the lymphatic system returns lymph to the bloodstream.
 24. Describe how blood pressure changes as blood flows through the body after leaving the heart. Explain why this happens.
 25. Describe how the muscles in an artery regulate blood flow.
 26. Explain why people with type AB blood can accept transfusions of any type blood.
- H (27) Describe the role of the cardiovascular system in helping the body get rid of carbon dioxide.

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Multiple Choice

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

- D 28. What causes blood pressure?
- a. the strength of the muscles in the walls of the capillaries
 - b. the speed at which oxygen is returned to blood in the lungs
 - c. the rate at which blood flows through the heart
 - d. the force with which the ventricles contract
- B 29. Which of these is NOT a function of the cardiovascular system?
- a. transporting cells that attack disease-causing microorganisms
 - b. controlling many body processes by means of chemicals
 - c. carrying oxygen, glucose, and other needed materials to cells
 - d. carrying waste products away from cells
- D 30. If a person's blood lacked platelets, what process could not take place?
- a. carrying glucose to cells
 - b. carrying oxygen to cells
 - c. transfusing of blood
 - d. clotting of blood
- D 31. In which vessels are materials exchanged between the blood and the body cells?
- a. lymphatic vessels
 - b. arteries
 - c. veins
 - d. capillaries
- C 32. Which chamber of the heart pumps oxygen-poor blood to the lungs?
- a. left atrium
 - b. right atrium
 - c. right ventricle
 - d. left ventricle
- D 33. Blood types are determined by
- a. the presence of fibrin in plasma.
 - b. marker molecules on white blood cells.
 - c. the kinds of blood that are available for transfusion.
 - d. marker molecules on red blood cells.
- B 34. Exercise is important for cardiovascular health because it
- a. slows the heartbeat.
 - b. strengthens heart muscle.
 - c. increases blood pressure.
 - d. reduces sodium in the blood.
- A 35. How many loops does the human circulatory system contain?
- a. two
 - b. four
 - c. three
 - d. one

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- C 36. Which component of blood is 90 percent water?
- a. platelets
 - b. red blood cells
 - c. plasma
 - d. white blood cells
- C 37. Blood vessels that carry blood away from the heart are called
- a. veins.
 - b. lymphatic vessels.
 - c. arteries.
 - d. capillaries.
- C 38. Needed substances are carried to the body cells by
- a. food.
 - b. water.
 - c. blood.
 - d. enzymes.
- B 39. What layer or layers of veins have muscles?
- a. the inner layer only
 - b. the middle layer only
 - c. all three layers
 - d. the outer layer only
- D 40. The function of the atria is to
- a. pump blood to the body.
 - b. pump blood to the lungs.
 - c. deliver oxygen to body tissues.
 - d. receive blood that comes into the heart.
- B 41. When the ventricles contract, blood is pumped
- a. through the septum.
 - b. out of the heart.
 - c. into the heart.
 - d. into veins.
- D 42. What is the function of the group of cells in the heart called the pacemaker?
- a. preventing blood from flowing backwards
 - b. carrying blood back to the heart
 - c. carrying blood away from the heart
 - d. sending out signals to make the heart muscles contract
- C 43. Which of these heart structures prevents blood from flowing backward?
- a. aorta
 - b. coronary artery
 - c. valve
 - d. septum
- D 44. Which component of blood carries oxygen to the body cells?
- a. plasma
 - b. platelets
 - c. white blood cells
 - d. red blood cells

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- D 45. If your pulse rate increases, your heart is beating
- a. at the same rate as before.
 - b. slower than before.
 - c. with less pressure than before.
 - d. faster than before.
- D 46. The function of white blood cells is to
- a. carry wastes away from body cells.
 - b. carry carbon dioxide.
 - c. increase blood pressure.
 - d. fight disease.
- D 47. When blood flows into the right atrium from the body, it contains
- a. little of either oxygen or carbon dioxide.
 - b. a lot of oxygen and little carbon dioxide.
 - c. a lot of both oxygen and carbon dioxide.
 - d. little oxygen and a lot of carbon dioxide.
- D 48. What is the function of lymph nodes?
- a. to transfer oxygen
 - b. to return lymph to the bloodstream
 - c. to make new lymph
 - d. to trap disease-causing bacteria