

Name _____

Date _____

Lesson 11.1: Learning the Key Terms

Directions: Place the letter of the best definition next to each key term.

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| <p>_____ 1. aorta</p> | <p>A. a period of contraction when the chambers are pumping blood out of the heart</p> |
| <p>_____ 2. aortic valve</p> | <p>B. the semilunar valve between the left ventricle and the aorta that prevents blood from flowing back into the left ventricle</p> |
| <p>_____ 3. atrioventricular (AV) valves</p> | <p>C. valves situated at the opening between the heart and the aorta, and at the opening between the heart and the pulmonary artery; they prevent backflow of blood into the ventricles</p> |
| <p>_____ 4. cardiac output</p> | <p>D. the two valves (tricuspid and mitral) situated between the atria and the ventricles</p> |
| <p>_____ 5. diastole</p> | <p>E. narrowing of the blood vessels, which decreases blood flow</p> |
| <p>_____ 6. endocardium</p> | <p>F. thick wall that divides the two ventricles in the heart</p> |
| <p>_____ 7. epicardium</p> | <p>G. the outermost layer of the heart and the innermost layer of the pericardial sac</p> |
| <p>_____ 8. inferior vena cava</p> | <p>H. the middle layer of the heart, which makes up about 2/3 of the heart muscle</p> |
| <p>_____ 9. interatrial septum</p> | <p>I. the amount of blood pumped from the heart per minute</p> |
| <p>_____ 10. interventricular septum</p> | <p>J. the volume of blood pumped from the heart per beat</p> |
| <p>_____ 11. mitral valve</p> | <p>K. the valve that closes the orifice between the right atrium and right ventricle of the heart; composed of three cusps</p> |
| <p>_____ 12. myocardium</p> | <p>L. a large arterial trunk that arises from the base of the left ventricle and channels blood from the heart into other arteries throughout the body</p> |
| <p>_____ 13. papillary muscle</p> | <p>M. largest vein in the human body that returns deoxygenated blood to the right atrium of the heart from body regions below the diaphragm</p> |
| <p>_____ 14. semilunar valves</p> | <p>N. second largest vein in the body that returns deoxygenated blood to the right atrium of the heart from the upper half of the body</p> |
| <p>_____ 15. stroke volume</p> | <p>O. one of the small muscular bundles attached at one end to the chordae tendineae and at the other to the innermost or endocardial wall of the ventricles; maintains tension on the chordate tendineae as the ventricle contracts</p> |
| <p>_____ 16. superior vena cava</p> | <p>P. the innermost layer of the heart, which lines the interior of the heart chambers and covers the valves of the heart</p> |
| <p>_____ 17. systole</p> | <p>Q. widening of the blood vessels, which increases blood flow</p> |
| <p>_____ 18. tricuspid valve</p> | <p>R. the valve that closes the orifice between the left atrium and left ventricle of the heart; bicuspid valve</p> |
| <p>_____ 19. vasoconstriction</p> | <p>S. the period of relaxation in the heart when the chambers are filling with blood</p> |
| <p>_____ 20. vasodilation</p> | <p>T. the wall that separates the right and left atria in the heart</p> |

Lesson 11.1: Study Questions

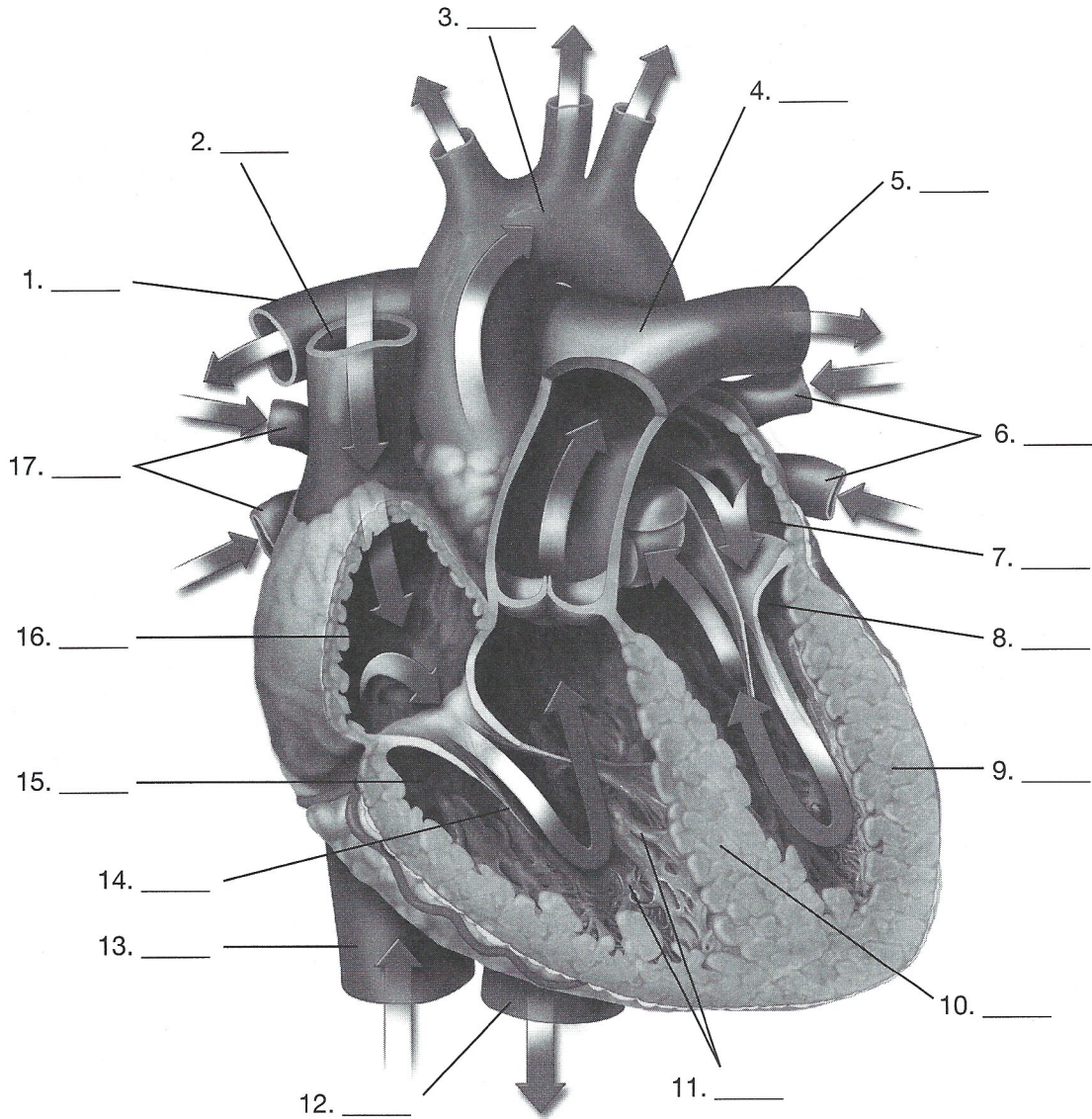
Directions: Answer the questions below on a separate sheet of paper. Studying the answers will help you prepare for the chapter test.

1. What are the pump, pipes, and fluid of the cardiovascular system?
2. Describe the functions of the cardiovascular system.
3. What is the average number of beats per minute in a normal adult heart?
4. Describe the location of the heart.
5. As the right and left ventricles contract almost simultaneously, what are they doing?
6. What would occur if the valves were not secured by the chordate tendineae and the papillary muscles?
7. Which set of valves is responsible for allowing the blood to flow from the ventricles into the lungs and the rest of the body?
8. Which valve does blood move through as it goes from the right atrium to the right ventricle?
9. Which artery carries blood to the lungs to be oxygenated?
10. As blood collects in the left atrium, pressure increases in the chamber, forcing which valve to open?
11. What is the name of the sac that encases the heart?
12. What are the three layers of the heart?
13. What are the two phases of the cardiac cycle?
14. What proportion of a cardiac cycle is spent in diastole and how much in systole?
15. Define *mean arterial pressure (MAP)*. What formula can be used to determine the MAP?
16. What produces the “lub-dub” sound of the heart we hear through a stethoscope?
17. How does intense aerobic training alter an athlete’s heart?
18. What is cardiac output (Q)? What is the formula for determining cardiac output?

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Lesson 11.1: The Heart

Directions: Label the figure with the letter of the appropriate callouts from the list provided.



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|----------------------|---------------------------------------|---|----------------------------|
| A. chordae tendineae | F. left pulmonary artery to left lung | J. descending aorta | N. right ventricle |
| B. left ventricle | G. left atrium | K. myocardium | O. interventricular septum |
| C. right atrium | H. right pulmonary veins | L. right pulmonary artery to right lung | P. papillary muscles |
| D. pulmonary trunk | I. superior vena cava | M. left pulmonary veins | Q. aortic arch |