- Answer each statement true or false. If the statement is false, change the underlined word to make it true.
- 1. The heart is located approximately between the second and fifth ribs and posterior to the vertebral column.
- 2. The pericardium is a double sac membrane in which the outer membrane is the visceral pericardium.
- 3.The major constituent of the heart is a layer of cardiac muscle known as the endocardium.

- 4. The two inferior chambers of the heart are known as the atria.
- 5. Blood returns from the body through the superior and inferior vena cava, which empty into the left atrium.
- 6.Blood returning from the heart muscle enters the ventricular sinus.

- 7. Blood moves toward the lungs after it leaves the right ventricle.
- 8.The aorta, the largest artery of the body, receives blood from the right ventricle.
- 9. The tricuspid valve lies between the left atrium and the left ventricle.

- 10. The valves found at the entrance to the pulmonary artery and aorta are known as semilunar.
- 11. The atrioventricular valves prevent blood from flowing backward into ventricles.
- 12. Dying cells in the heart muscle may form a blockage known as a coronary thrombosis.

- 13. Impulses for the contraction of the heart muscle are generated initially at the atrioventricular node.
- 14. Fibers known as Purkinje fibers spread out from the AV node and carry impulses to the ventricles.
- 15. Some nerve control over the heart can be exerted by fibers of the autonomic nervous system.

- 16. The condition in which the heart contracts rapidly and irregularly is known as arrhythmia.
- 17. The relaxation period between heart contractions is known as systole.
- 18. The heart beats approximately 70 -75 times each second.

- 19. A heart murmur is generally due to unusual heart sounds arising from improper activity of the heart muscle.
- 20. The smallest heart vessels in the body are known as venules.

21. The narrowing of the lumen of the artery is known as vasodilation.

- 23. A pulse rate that is more rapid than normal reflects a condition called tachycardia.
- 24. The carotid bodies and aortic bodies contain neurons called baroreceptors that help regulate the blood flow.
- 25. The only artery that carries carbon dioxide –rich blood is the pulmonary artery.

- 1. What two cell types are involved in producing a coordinating heart contraction?
- 2. The heart is composed of 3 major cardiac muscles. What are they?
- 3.What causes the first heart sound (LUB)?
- 4. What causes the second sound (DUP)?

- 5. Can you name the Pacemakers (in order) inherent rhythm?
- 6. What are the pulmonary circuit and the systemic circuits?
- 7. What is an electrocardiogram?
- 8. What are the 3 electrical events associated with each cardiac cycle?

- 9. What does each wave represent?
- 10. There are several named intervals associated with each cardiac cycle. Can you name 3?
- 11. The SA node spreads to both atria in how many action potentials/minute?
- 12. What about the AV node – how many action potentials/min?

- 13. A blockage within the heart arteries caused by the death of heart muscle cells is known as _____.
- 14. The valves leading to the pulmonary trunk and aorta are referred to as the _____.
- 15.The pressure of the blood can be measured by an instrument known as _____.

- Answers true/false

- 1. anterior
- 2. parietal
- 3.myocardium
- 4. ventricles
- 5. right
- 6. coronary

- 7. true
- 8. left
- 9. bicuspid (mitral)
- 10. true
- 11. atria
- 12. myocardial infarction
- 13. sinoatrial

- 14. true
- 15. true
- 16. fibrillation
- 17. diastole
- 18. minute
- 19. valves
- 20. capillaries

- 21. vasoconstriction
- 23. true
- 24.chemoreceptors
- 25. true

- Answers Fill in the blank

- 1. cardiac autorhythmic cells & cardiac contractile cells.
- 2. atrial muscle, ventricular muscle, & specialized excitatory and conductive muscle fibers.
- 3. It caused by the shutting of atrioventricular valves at the onset of the ventricular systole.

- 4. It is caused by the shutting of semilunar valves at the onset of ventricular diastole.
- 5. Sino- atrial (SA) node, atrio- ventricular (AV) node, Bundle of His, bundle branches, and Purkinje fibers.
- 6.Pulmonary circuit oxygen poor blood is pumped from the right side the heart to the lungs. Systemic circuit – the left side of the heart pumps oxygen rich blood out to the body's tissues and organs.

- 7. Tracing of the heart's electrical activity as impulses are conducted through the myocardium.
- 8. P wave, QRS complex, and T wave
- 9. P wave represents atrial depolarization. contraction of the atria immediately follows the P wave.
- QRS complex represents ventricular depolarization. It is immediately followed by contraction of the ventricles.

- T wave represents ventricular repolarization. It is immediately followed by ventricular relaxation.
- 10. PR interval – from the beginning of the P wave to the beginning of the QRS complex.
- QT interval – extends from the beginning of the QRS complex to the end of the T wave.
- ST wave segment – runs from the end of the S wave to the beginning of the T wave. The ventricles are completely depolarized by this time

- 11. 90 -100
- 12. 40 -50
- 13. an infarct
- 14. semilunar valves
- 15. sphygmomanometer