1. The bicuspid or mitral valve is located between which two chambers of the heart?

|  |  |
| --- | --- |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. the right and left atria http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. the right and left ventricles http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. the right atrium and the left ventricle http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. the left atrium and the left ventricle http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. the right atrium and the pulmonary trunk http://www.phschool.com/science/biology_place/images/spacer.gif |

2. Which two heart chambers pump oxygenated blood?

|  |  |
| --- | --- |
|  | 1. the right and left atria http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. the right and left ventricles http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. the right atrium and the left ventricle http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. the left atrium and the left ventricle http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. the right atrium and the pulmonary trunk http://www.phschool.com/science/biology_place/images/spacer.gif |

3. The portion of the intrinsic conduction system located in the interventricular septum is the:

|  |  |
| --- | --- |
|  | 1. SA node http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. Purkinje fibers http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. bundle of His and its branches http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. AV node http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. interatrial pathway http://www.phschool.com/science/biology_place/images/spacer.gif |

4. An electrocardiogram is a graphic illustration of the:

|  |  |
| --- | --- |
|  | 1. cardiac conduction system http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. cardiac cycle http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. cardiac output http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. systemic and pulmonary circuits http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. coronary vessels http://www.phschool.com/science/biology_place/images/spacer.gif |

5. Which two great vessels bring deoxygenated blood back to the heart?

|  |  |
| --- | --- |
|  | 1. the aorta and the pulmonary trunk http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. the pulmonary arteries and the pulmonary veins http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. the superior and inferior venae cavae http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. the aorta and the superior vena cava http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. the coronary arteries and the coronary veins http://www.phschool.com/science/biology_place/images/spacer.gif |

6. An average heartbeat, or cardiac cycle, lasts approximately:

|  |  |
| --- | --- |
|  | 1. 8.0 seconds http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. 80 seconds http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. 0.80 seconds http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. 0.008 seconds http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. 60 seconds http://www.phschool.com/science/biology_place/images/spacer.gif |

7. During Phase 2 of the cardiac cycle, which of the following events are occurring?

|  |
| --- |
| 1. Atria relax (diastole) while the ventricles contract (systole); AV valves are closed while the semilunar valves are open. http://www.phschool.com/science/biology_place/images/spacer.gif |
| 1. Atria contract (systole) while the ventricles relax (diastole); AV valves are open while the semilunar valves are closed. http://www.phschool.com/science/biology_place/images/spacer.gif |
| 1. Atria and ventricles are relaxed (diastole); AV valves are open while the semilunar valves are closed. http://www.phschool.com/science/biology_place/images/spacer.gif |
| 1. Blood moves from the right ventricle into the pulmonary trunk, while blood moves from the left ventricle into the aorta. |
| 1. both a and d are correct http://www.phschool.com/science/biology_place/images/spacer.gif |

8. The P wave of the ECG represents:

|  |  |
| --- | --- |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. ventricular depolarization http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. atrial depolarization http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. ventricular repolarization http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. SA node excitation http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. atrial systole http://www.phschool.com/science/biology_place/images/spacer.gif |

9. During Phase 1 of the cardiac cycle, which of the following events are occurring?

|  |  |
| --- | --- |
|  | 1. Atria relax (diastole) while the ventricles contract (systole); AV valves are closed while the semilunar valves are open. http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. Atria contract (systole) while the ventricles relax (diastole); AV valves are open while the semilunar valves are closed. http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. Atria and ventricles are relaxed (diastole); AV valves are open while the semilunar valves are closed. http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. Blood enters the right atrium through the venae cavae and the left atrium through the pulmonary veins. http://www.phschool.com/science/biology_place/images/spacer.gif |
| http://www.phschool.com/science/biology_place/images/spacer.gif | 1. Both b and d are correct. http://www.phschool.com/science/biology_place/images/spacer.gif |

10. During Phase 3 of the cardiac cycle, which of the following events are occurring?

|  |
| --- |
| 1. Atria relax (diastole) while the ventricles contract (systole); AV valves are closed while the semilunar valves are open. http://www.phschool.com/science/biology_place/images/spacer.gif |
| 1. Atria contract (systole) while the ventricles relax (diastole); AV valves are open while the semilunar valves are closed. http://www.phschool.com/science/biology_place/images/spacer.gif |
| 1. Atria and ventricles are relaxed (diastole); AV valves are open while the semilunar valves are closed. http://www.phschool.com/science/biology_place/images/spacer.gif |
| 1. Blood enters the right atrium through the venae cavae and the left atrium through the pulmonary veins. http://www.phschool.com/science/biology_place/images/spacer.gif |
| 1. Both c and d are correct. http://www.phschool.com/science/biology_place/images/spacer.gif |

11. Once action potentials are generated by the heart's intrinsic conduction system, they are conducted from myocardial cell to myocardial cell via \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ located in the \_\_\_\_\_\_\_\_\_\_\_\_\_.

|  |
| --- |
| 1. desmosomes; intercalated discs http://www.phschool.com/science/biology_place/images/spacer.gif |
| 1. gap junctions; intercalated discs http://www.phschool.com/science/biology_place/images/spacer.gif |
| 1. actin and myosin; sarcomeres http://www.phschool.com/science/biology_place/images/spacer.gif |
| 1. myofibrils; desmosomes http://www.phschool.com/science/biology_place/images/spacer.gif |
| 1. T-tubules; sarcolemma http://www.phschool.com/science/biology_place/images/spacer.gif |

**Model Answers:**

1. **D**
2. **D**
3. **C**
4. **A**
5. **C**
6. **C**
7. **E**
8. **B**
9. **B**
10. **E**
11. B