**Biology – Quiz #2 Practice**

The superior chambers of the heart are called the \_\_\_\_\_\_\_\_\_\_.

1. Ventricles
2. Cavae
3. Atria
4. Atrioventricular valves

Freshly oxygenated blood is delivered to the \_\_\_\_\_\_\_\_\_\_ and then it passes into the \_\_\_\_\_\_\_\_\_\_ to be pumped to the entire body.

1. left ventricle; left atrium
2. left atrium; left ventricle
3. right ventricle; right atrium
4. right atrium; right ventricle

Into which chamber of the heart do the pulmonary veins deliver blood?

1. right atrium
2. left atrium
3. left ventricle
4. right ventricle

The role of the atrioventricular node (AV node) is to \_\_\_\_\_\_\_\_\_\_.

1. initiate ventricular contraction
2. conduct impulses to the sinoatrial node (SA node)
3. initiate atrial contraction
4. slow down the impulses so that atrial contraction is separate from ventricular contraction

Which is the correct circulatory sequence of blood passing through part of the heart?

1. R. Atrium 🡪 Right Semiunar Valve 🡪 R. Ventricle 🡪 Pulmonary Artery
2. R atrium 🡪 Left AV Valve 🡪 R. Ventricle 🡪 Aorta
3. L. Atrium 🡪 Left AV Valve 🡪 L. Ventricle 🡪 Aorta
4. L. Atrium 🡪 Left AV Valve 🡪 L. Ventricle 🡪 Pulmonary Artery

The muscular layer in the wall of a blood vessel is the

1. tunica intima.
2. tunica adventitia .
3. tunica media.

Compared to arteries, veins

A) are more elastic.

B) have more smooth muscle in their tunica media.

C) have no endothelium.

D) have thinner walls.

Which of the following is the innermost layer of a blood vessel?

A) tunica intima

B) tunica media

C) tunica externa.

Describe two structural differences between arteries and veins. How do these differences relate to the functions of each vessel type?

Please write in the name of each indicated part of the human heart.



1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
10. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The heart’s natural pacemaker is termed the:
 a. sinoatrial node  
 b. atrioventricular node
 c. bundle of His/atrioventricular bundle
 d. left and right bundle branches
 e. Purkinje fibers

The exchange of gases and nutrients between blood and tissues is a major function of:
 a. arterioles
 b. arteries
 c. capillaries  
 d. veins

The large vessels that return blood to the heart are called

A) arteries.  B) arterioles.  C) capillaries.  D) venules.  E) veins.

Which of the following slows the electrical signals in the heart

1. [SA node](http://home.cse.edu/~ikessler/physio/quiz/no.html%22%20%5Ct%20%22answer)
2. [AV node\*](http://home.cse.edu/~ikessler/physio/quiz/yes.html%22%20%5Ct%20%22answer)
3. [Right and left bundle branches](http://home.cse.edu/~ikessler/physio/quiz/no.html%22%20%5Ct%20%22answer)
4. [Purkinje fibers](http://home.cse.edu/~ikessler/physio/quiz/no.html%22%20%5Ct%20%22answer)

Place the parts of the conduction system of the heart in the correct sequence

A. Bundle branches
B. AV node
C. Purkinje fibers
D. SA node

E. Ventricle Walls

1. [C-D-E-B-A](http://home.cse.edu/~ikessler/physio/quiz/no.html%22%20%5Ct%20%22answer)
2. [D-B-E-A-C](http://home.cse.edu/~ikessler/physio/quiz/yes.html%22%20%5Ct%20%22answer)
3. [A-B-C-D-E](http://home.cse.edu/~ikessler/physio/quiz/no.html%22%20%5Ct%20%22answer)
4. [D-B-C-D-A](http://home.cse.edu/~ikessler/physio/quiz/no.html%22%20%5Ct%20%22answer)
5. D-B-A-C-E

Cardiac muscle cells are organized into long fibers; each cell is connected by intercalated disks and the cell interior is packed with protein fibers and mitochondria, explain how this structure relates to the functions of these specialized cells.

Explain how the patterns that are generated from the relationships of the cardiac cells give rise to emergent properties at the tissue level of organization. What dominant pattern is expressed and what two main properties are generated?

**Extra Credit Possibilities**

What is a heart murmur?

Explain the main differences between the way we (humans (in case you forgot):) breathe and the way a jellyfish breathes. Why wouldn’t a jellyfishes’ form of respiration work for our body plan?

What generates each of the initial (lub) sound of the heartbeat? What generates the secondary (dub) sound?

Which of the following is true about Neural Control of the Heart

1. [the parasympathetic nerves increase the pacemaker rate](http://home.cse.edu/~ikessler/physio/quiz/no.html%22%20%5Ct%20%22answer)
2. [the parasympathetic nerves decrease the pacemaker rate](http://home.cse.edu/~ikessler/physio/quiz/yes.html%22%20%5Ct%20%22answer)
3. [the sympathetic nerves decrease the pacemaker rate](http://home.cse.edu/~ikessler/physio/quiz/no.html%22%20%5Ct%20%22answer)
4. the sympathetic nerves increase the pacemaker rate