**Heart**

**Practice Quiz**

1. Identify the 3 layers of the heart wall from inside to outside. What tissue type makes up each

layer?

2. Will an increase in preload cause an increase or decrease in cardiac output? Will an increase in

contractility cause an increase or decrease in cardiac output? Will an increase in afterload

cause an increase or decrease in cardiac output?

3. Where is the SA node located? What is its function?

4. Movement of what ion, in what direction, causes depolarization of autorhythmic cells?

Cardiac muscle cells?

5. Movement of what ion, in what direction, causes repolarization of autorhythmic cells? Cardiac

muscle cells?

6. Movement of what ions, in what directions, causes the plateau phase of cardiac muscle action

potentials?

7. What is the function of the AV node? How long is the average delay?

8. Name the 3 phases of the cardiac cycle in order. What major events occur during each phase?

9. Which vessels empty into the right atrium? Into the left atrium?

10. What effect does epinephrine/norepinephrine have on heart rate? What effect does ACh have

on heart rate?

11. What is the fossa ovalis? The foramen ovale?

12. Define cardiac output, stroke volume, and end diastolic volume.

13. What are the functions of the bundle of His, bundle branches, and Purkinje fibers?

14. What effect does the sympathetic have on the functioning of the SA and AV nodes? What

effect does the parasympathetic have on these 2 structures?

15. Describe what effects the following conditions will have on heart rate and why;

hypernatremia, hypercalcemia, hyperkalemia, hypercapnia.

16. List the characteristics of cardiac muscle tissue. Which is the defining characteristic?

17. Where in the nervous system is the cardiovascular center located? What are its 3

components?

18. Describe the Frank-Starling Law of the Heart.

19. What nerves of the sympathetic and parasympathetic nervous system innervate the SA and

AV nodes.

20. What body conditions cause a sympathetic response? A parasympathetic response?

21. On an EKG what does the P-wave represent? The QRS-complex? The T-wave? An elevated

S-T segment?

22. List the part of the heart that each of the following coronary vessels supplies nutrients to;

right coronary artery, marginal artery, posterior interventricular artery, left coronary artery,

anterior interventricular artery, and circumflex artery.

23. What chemicals are detected by chemoreceptors in the cardiovascular system? Where are the

2 locations we find chemoreceptors? What is detected by baroreceptors? What is detected by

proprioceptors?

24. Describe the papillary muscles and chordae tendinae. What is their combined function?

Describe trabeculae carnae.

25. Define positive inotropic agent and negative inotropic agent. What ion do they influence the

movement of?

26. List the 4 heart valves. What 2 structures does each valve separate?

27. What events cause the “lub” and “dup” sounds of the heart?

28. List and describe the heart disorders covered in class.