**Biology I – Study guide for Quiz #2**

Be able to *apply* the following Anatomical Terms to diagrams and descriptions:

Anterior Deep

Posterior Superficial

Superior Inferior

Be able to describe the pathway of blood through the heart and the rest of the body.

Be able to locate and explain the structure and functions of the parts of the heart and other Cardiovascular Organs:

Right Atrium Atrioventricular Valves

Right Ventricle Semilunar Valves

Pulmonary Artery Aorta

Pulmonary Veins Superior Vena Cava

Left Atrium Inferior Vena Cava

Left Ventricle

Characterize terms/states Systole and Diastole. How does a Syphgmomanometer work?

Describe the main differences in the blood pathways and the structures of the heart in the circulatory systems of fish, amphibians, reptiles and mammals. How do the differences in structures relate to the life characteristics of each animal and the evolutionary development of the CV system?

Describe the structural differences between Arteries, Veins, and Capillaries. Why are they different? How does this relate to their function in the body? Be able to point out and describe the structure of the Tunica Intima, Tunica Media, and Tunica Adventitia layers.

How does the heart generate its rhythmic contractions? Be able to describe this process as well as the roles of the:

Sinoatrial Node

Atrioventricular Node

Bundle Fibers

Purkinje Fibers.

Describe the structure of cardiac muscle cells. What role do the Intercalated Disks serve in transmitting electrical impulses? How does their structure relate to function? How are the Cardiac Muscle Cells organized? Why?

What emergent patterns do you recognize in the heart and the rest of the cardiovascular system?