

## BI 358 Active Learning Questions Lecture 8

1. Cardiovascular physiologists often view the heart as *2 separate pumps with 2 primary functions*. What are these *2 unique pumps* along with *general functions*? Draw a *4-chambered box* representing the heart below and label each of the 4 chambers. What is the general *flow of blood* in the heart? From...to...to...
2. What are the *2 major valve sets/groupings* within the heart? What are the *unique characteristics* of these valve sets? What is *MVP*?
3. During which phase of the *cardiac cycle* does most *coronary blood flow* take place? Why? Draw a *sketch* illustrating your understanding of this concept.
4. If an *atherosclerotic lesion* occurs at the *bifurcation* of the *left (main) coronary artery (LCA)* and the *left anterior descending artery (LAD)*, what *tissues* are affected by *ischemia, hypoxia, anoxia* and *necrosis*? Draw a simple *sketch* illustrating this *bifurcation* and with an *X* mark the tissues of the heart that are *impacted adversely*.
5. In Dr. *Bruce Kottke's* (Mayo Clinic) *bathtub analogy for cholesterol metabolism*, what does the *faucet* represent? What does the *drain* represent? What does the *bathwater level* represent? What are *bad types of cholesterol* carriers that deposit cholesterol in the periphery? What is the *good type of cholesterol carrier* that picks up cholesterol and delivers it to the liver to be incorporated into bile?