BI 358 Active Learning Questions Lecture 6

1. What are *2 major components* of *blood*? *What %* of the blood does each component account for? What is *hematocrit*? How and why does hematocrit differ among *females* & *males*? What *hormone* induces *red blood cell production*? What is *sickle cell anemia*?

2. What are the *effector cells* of the *immune system*? What are the *granulocytes*? *Agranulocytes*? What are the *%*s and *general functions* of each type? What are monocytes called when they swell up and make camp in the tissues? List *2 unique names* of these swelled up cells based on the tissues they reside in.

3. Which *white blood cell general classification* contains the *commander-in-chief of the immune system* that is attacked by the *Human Immunodeficiency Virus* (HIV)? *Why* is this directed attack by HIV so devastating? What *other subtypes* are within this specific *leukocyte category* and what are their general *functions*?

4. Provide 2 unique characteristics of the *innate/inborn/nonspecific* and *adaptive/acquired/ specific* branches of the immune system. How are these branches *related*? That is, how do they *intersect* or work together? Without regard for the nature of the stimulus, what are *general steps* in the *inflammatory process*?

5. What is an *immunoglobulin*? Make a rough sketch of an immunoglobulin below. List *general functions* and *subclasses* and *a unique characteristic* of each subclass. Which *immunoglobulin subclass* is elevated in *allergic reactions*? Which is most *prevalent* in plasma? How might *allergy shots* or immunotherapy help *reduce the severity* of an allergic reaction?