BI 358 Active Learning Q Lecture 4

1. What's an easy way to estimate *uncooked* and *cooked* sizes of *meats*? …a *cup* of rice? ... *¼ cup* of mashed potatoes? ...*6 oz* of cheese?

2. If the *gastrointestinal (GI) tract* is viewed like the hole of a doughnut, where would an *accessory organ* of digestion be relative to the hole? Identify an *accessory organ* of digestion. How is it *connected* to the GI tract, that is, by way of what *structure*?

3. Identify *4 hormones* involved in the *regulation of digestion* as well as their *specific functions*. What is the *release site for hormones* and what are their general *gut target* organs? What *gut secretions* have a *common release site* unique when compared to that for hormones?

4. What is *hydrolysis*? What *elements* are required for hydrolysis to take place? Identify *3 energy nutrients*, list them in order of *priority for ATP* production and identify their specific *end products* following complete enzymatic digestion.

5. *Where* within the gut does *enzymatic digestion of carbohydrates begin*? Where does it *end*? What *enzymes* are involved? What is the *1^0 breakdown product* of carbohydrates? Why do some people have trouble digesting milk? Might there be an *enzymatic problem*? If so, identify the *specific enzyme/s* involved?