- 1. Where does the digestive process start in a mammal?
 - A. Mouth
 - B. Stomach
 - C. Small intestine
 - D. Large intestine
 - E. Last part of the large intestine
- 2. Where is the lowest pH within the human digestive tract?
 - A. Mouth
 - B. Stomach
 - C. Small intestine
 - D. Large intestine
 - E. Last part of the large intestine
- 3. Which cell type releases pepsinogen into the stomach
 - A. Goblet cell
- B. Chief cell
- C. Parietal cell D. Granular cell E. Amacrine cell
- 4. What is a logical reason for the pH neutralization in the beginning of the small intestine? (open response.... Needs to be sensible)

To protect the cells in the small intestine since the food needs to come in contact with the epithelia tissue to absorb the nutrients.

- What is one of the main actions of bile salts in the intestinal tract? (open response.... Needs to be sensible) Emulsify fats so they can be broken down and absorbed across the small intestine.
- 6. What might be a consequence of a mammal not making "intrinsic factor" in the stomach? (open response.... Needs to be sensible)

Intrinsic factor is needed to aid in absorption of Vitamin B12 (in small intestine) which is used to produce red blood cells.

7. What are some of the main problems if someone took a lot of antibiotics and killed out the *E. coli* bacteria on one's gastrointestinal tract? (open response.... Needs to be sensible)

The bacteria aids in making vitamins in our GI track as well as breakdown food to smaller molecules So one would end up with potentially bleed problems by not making Vit-K, and lack of other vitamins. Also one would not digest food fully, Also, allowing other bacteria to invade and cause problems in digestive properties and even making toxins.

- 8. Where is the majority of amino acids and glucose absorbed along the gastrointestinal tract?
 - A. Mouth
 - B. Stomach
 - C. Small intestine
 - D. Large intestine
 - E. Last part of the large intestine
- 9. What is the function of the hormone "gastrin" in relation to the gastrointestinal tract? (open response.... Needs to be sensible)

Gastrin stimulates parietal cells to secrete HCL in the stomach

10. State a means (there are several) in which insects physiological condition their body to avoid freezing when exposed to freezing conditions such as what naturally occurs with seasonal changes in Kentucky?

Freeze extracellular fluid to Increase OSM within cells to lower freezing point within cells to prevent ice formation within the cell and organelles. Making glycerol. Making antifreeze proteins.