Instructions

Answer the following questions.

1. Describe in your own words the mechanical and chemical processes in the mouth that result in the formation of a bolus.

2. Summarize the composition and functions of gastric juice. Include the pH, the components and the function of each component in your answer.

3. Name three digestive enzymes, two hormones, and one other compound produced in the pancreas.

4. Describe how the two hormones produced in the pancreas act to regulate blood sugar levels.

5. Patients with Type I diabetes do not produce sufficient amounts of insulin. How does this affect an individual, what are the symptoms, and how is the disease treated?

6. What is the name of the blood vessel that connects the small intestine to the liver?

7. What is the function of the gall bladder?

8. What are the six functions of the liver?

9. What is the function of bile?

10. Describe how fats are emulsified, digested, and absorbed in the small intestine.

11. Sketch and label a villus. Include an explanation of how the structure of the villus facilitates absorption of nutrients.

12. When nutrients are absorbed into the villus, which enter the bloodstream and which enter the lacteals?

13. Name three enzymes found in intestinal juice and describe their functions.

14. Name 3 functions of the large intestine. Why is the large intestine important for regulation of water levels in the body?

15. Describe the composition of human feces.

16. Describe how bacteria normally found in the large intestine help to maintain good health.