

Biology 12: Digestion Review Answer Key

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Review Questions:

1. Define digestion. Why is this process important?
2. List the 4 functions of the digestive system.
3. How does saliva contribute to the formation of a bolus?
4. What prevents food from entering the nasal chamber and the trachea during swallowing of food?
5. The opening to the larynx is called the glottis, which is covered when the trachea moves up by the epiglottis.
6. What is responsible for heartburn and how is it normally prevented from occurring?
7. List the functions of the stomach. What is chyme?
8. What is the function of the gastric glands in the stomach?
9. What is an ulcer and why does it form?
10. List 4 functions of the small intestine. What molecule from the pancreas neutralizes the acidity of chyme?
11. Describe the structure of villi and microvilli in the small intestine.
12. How are the small nutrient molecules absorbed across the wall of each villus? What do they enter?
13. What is the function of the large intestine? How does its size compare with the small intestine?
14. Which organ of the large intestine may play a role in immunity and if inflamed leads to appendicitis?
15. Over 99% of the colon bacteria are *E.coli (obligate anaerobes)*, bacteria that die in the presence of oxygen.
16. Describe the effects of bacteria in the large intestine. What does a high chloriform count in swimming water mean?
17. Why will food poisoning and nerve stimulation cause diarrhea?
18. How does milk of magnesia and mineral oil work to overcome constipation?
19. What is the exocrine function of the pancreas? How do its products get to the duodenum?
20. Name the 2 hormones secreted from the duodenal wall that signal the pancreas and the gallbladder to release their products.
21. What are the components of bile? Give their function. What organ produces bile? Where is it stored?
22. Explain why the liver is said to act as the gatekeeper to the blood.
23. Define deamination. What happens to those amino groups in the liver? How is urea excreted?
24. List the 6 (7?) functions of the liver.
25. Name the enzyme found in the stomach. What is it formed from? What does it act upon? What products will it form?

Questions:

1. Name the Pancreatic enzyme that in the duodenum will:
 - a. digest starch: amylase It forms the product maltose
 - b. digest Protein: trypsin It forms the product peptides
 - c. digest fat droplets: lipase It forms the product fatty acids + glycerol
 - d. The end products of fat digestion reform in the epithelial cells and are