

Digestive System  
Unit Four Study Guide C25  
(2024\_6\_30)

- 1 What two division make the digestive system?
- 2 What are the five functions of the digestive system?
- 3 What are the six sphincter muscles of the alimentary canal? Are they all smooth muscle? Explain
- 4 What are the two types of digestion? How do they differ? Where do they occur?
- 5 What are the four macromolecules digested and what are their monomers?
- 6 What is the primary function of the stomach? What is the volume of the stomach when it is empty? After typical meal? After Thanksgiving dinner? How long does it take to empty the stomach? How much volume is released into the duodenum?
- 7 What is the structure of a gastric pit? What four cell types are in a gastric pit? What is secreted by each gastric pit cell type? Significance?
- 8 How is the stomach mucosa protected from gastric acid? How many days will it take to replace the cells lining the stomach?
- 9 What are the three phases of gastric regulation? Which phase slows down gastric secretions and contractions?
- 10 What is the enterogastric reflex?
- 11 What is the function of secretin, cholecystokinin, and glucose dependent insulinotropic peptide? Source of hormones? Target tissue?
- 12 What is the alkaline tide? Why does this occur?
- 13 What is a zymogen? Why do we need zymogens? What zymogen is released by chief cells?
- 14 What is the only indispensable function of the stomach? What role does the parietal cells play in this process? What disease occurs if vitamin B12 is not absorbed?
- 15 What percent length is each segment of the small intestine?
- 16 What three mechanisms controll small intestine motility and secretions?
- 17 What are the two type of small intestine motility? Function of each type of motility?
- 18 What structures help to increase nutrient absorption across the small intestine's mucosa?
- 19 What are enteroendocrine cells? Location? Functions? Examples?

- 20 What is the main function of the large intestine? Circular folds and microvilli?  
What is the structure of the rectum? What type of muscles regulate the defecation reflex?
- 21 How long does it take for the large intestine to process the food residue? How often is there a haustral contraction? How often is there a mass movement?
- 22 How many different bacterial species live in our large intestine? Do the bacteria make anything we need? How may these bacterial embarrass you?
- 23 What are the six accessory organs?
- 24 Liver functions?
- 25 What are the two components of bile? Function of each? What two hormones are released by the duodenum to trigger release of bile? Primary action of each molecule? What hormone will cause the release of sodium-bicarbonate? From where? Function of sodium-bicarbonate?
- 26 What is the function of enterokinase?