The Digestive System: Anatomy Review

1. List two main divisions of the digestive system.
   a. 
   b. 

2. The four main layers of the digestive tract wall are
   a. 
   b. 
   c. 
   d. 
3. Label the diagram below with the four main layers you listed in question 6.

4. The mucosa includes a type of columnar _______ that forms the inner lining of the lumen.

5. Blood and lymph vessels of the mucosa are found in its _______ _______ connective tissue layer.

6. The smooth muscle layer of the mucosa is called the _______ _______.

7. The function of epithelial goblet cells is to secrete _______.

8. ________ cells of the mucosa secrete hormones into the blood.

9. Absorption of nutrients occurs through the mucosal epithelium and into either _______ or _______ vessels.
10. Label the vessels you listed in question 13 in the diagram below.

11. The muscularis mucosa has both ________ and _______ fibers that function in moving the villi to aid in digestion and absorption.

12. The built-in (intrinsic) network of nerve cells in the submucosa is the ______ ______.

13. The two types of movements produced by contractions of the muscularis externa are ____________ and ____________.

14. The network of neurons in between the two muscle layers of the muscularis externa is the ___________ ____________.

15. The mouth, with its _____ _____ epithelium, is involved in both chemical and ____ digestion.
16. List the four regions of the stomach:
   a. ________
   b. ________
   c. ________
   d. ________

17. List the three sheets of muscle in the stomach’s muscularis externa:
   a. __________
   b. __________
   c. __________

18. Label the three sheets of muscle in the stomach’s muscularis externa in the diagram below.
19. List, in order from the pylorus to the colon, the three regions of the small intestine:
   a. __________
   b. __________
   c. __________

20. From largest to smallest, list the three modifications of the small intestine’s inner wall that function to increase surface area:
   a. __________
   b. __________
   c. __________

21. Label two of the modifications of the intestine to increase surface area in the diagram below.

22. The microvilli of the small intestine’s epithelial cells form the ______ border.

23. The large intestine absorbs ________, ________, and _________.

24. Starting from the ileocecal valve, trace the path of undigested material through the large intestine.
25. The anus is lined with ______ ______ epithelium.

26. List the 6 sphincters of the digestive tract:
   a. ______
   b. ______
   c. ______
   d. ______
   e. ______

27. The single digestive function of the liver is to produce _____.

28. The main digestive enzyme-producing organ in the body is the ______.

29. Three pairs of _____ _____ function to moisten food in the mouth.