

Bio 1400
Study Guide Chapter 4
Body Basics

1. What forms the foundation for the scientific study of nutrition?
2. What may happen when a chemical bond is form?
3. What is the difference between ammonia and ammonium?
4. What is the normal blood pH range?
5. Give examples of acid and base house products:
6. What type of chemical reaction occurs when you mix baking soda and vinegar? What is the significance of this reaction when you bake a cake?
7. When reading text, how can you tell if a word describes an enzyme? What factors affect enzymes?
8. Describe a typical cell and define the “function” on each component:
9. What is the structural hierarchy of the human body?
10. What can disrupt homeostasis?
11. What are “11” systems of the human body? Explain the function of each system:
12. Are vegetable “raw foods” more nutritious than cooked vegetables?
13. What are the major structures of the GI tract? What are the accessory organs of the GI tract?
14. What are the two forms of digestion that occur in the mouth? Explain
15. What is the function of the taste buds and where are they located?
16. What type of taste can taste buds distinguish?
17. Are the number of taste buds constant throughout life?
18. What happens when you swallow?
19. How much food can the stomach store? How long does it take for the stomach to empty?

20. What is the chemical environment inside the stomach and what prevents the stomach from digesting itself?
21. Are nutrients absorbed in the stomach?
22. What two structures function as the “gate keepers” for the stomach? What is heartburn?
23. What is the relative length of the three sections of the small intestines?
24. What happens in the small intestines? How long does it take for the chyme to move through the intestines?
25. What role does the liver play in the digestive system?
26. What is the relationship between the liver and gall bladder?
27. What is the function of the pancreas in the digestive system?
28. What is the regulatory mechanism between the duodenum, liver, gall bladder, and pancreas?
29. What is the function of “absorptive cells of the small intestine? What is unique about an infant’s absorptive cells?
30. What is the relationship between the portal vein, chylomicrons, and lacteals?
31. Explain the condition and physiologic mechanism associated with the following conditions: cystic fibrosis, inflammatory bowel disease, constipation, diarrhea, vomiting, heartburn, and peptic ulcer.
32. How long is the colon? What happens in the colon?
33. What is the terminal section of the large intestines called and what is stored here?
34. Are there bacteria in the GI tract? Explain