TEST # 2 (Chapter 3)
Read each question carefully and mark your answer on the Scantron.

1. Cells can best be described as:
   a. the basis of the body's design
   b. the vital components of foods
   c. self-contained living entities
   d. facilitators of digestion

2. Cells are organized into tissues that perform specialized tasks.
   a. true
   b. false

3. Cells lining the digestive tract replace themselves every:
   a. 3 days
   b. 2 weeks
   c. 4 months
   d. 12 months

4. The first principle of diet planning is that whatever foods we choose, they must provide energy, water, & ________.
   a. essential nutrients
   b. fuel
   c. oxygen
   d. fluids

5. Which of the following determines the nature of the cell's work?
   a. organs
   b. mutations
   c. red blood cells
   d. genes

6. When the pancreas detects a high concentration of the blood's sugar, glucose, it releases:
   a. lymph
   b. insulin
   c. antibodies
   d. glucagon

7. The body's main fluid(s) is (are)?
   a. intracellular fluid
   b. blood
   c. lymph
   d. a and b
   e. b and c
8. The blood picks up oxygen and releases carbon dioxide in the:
   a. heart
   b. liver
   c. digestive system
   d. lungs

9. The blood is cleansed of its wastes while passing through the:
   a. liver
   b. digestive system
   c. kidneys
   d. heart

10. Hormones are secreted and released into the blood by ____.
    a. antigens
    b. enzymes
    c. glands
    d. antibodies

11. The body's cells need nutrients around the clock.
    a. true
    b. false

12. Which of the following does not occur as part of the stress response?
    a. muscles tense up
    b. liver pours forth glucose
    c. digestive system shuts down
    d. blood pressure decreases

13. Which of the following is considered only a storage organ?
    a. liver
    b. gallbladder
    c. salivary glands
    d. pancreas

14. Without sufficient _____, the digestive tract muscles get too little exercise and become weak.
    a. energy
    b. fiber
    c. nutrients
    d. water

**MATCHING**

Match the organs listed on the left with their appropriate functions listed on the right. (You may use each answer only once.)

15. _____ mouth  
    a. manufactures bile to help digest fats
16. _____ esophagus  
    b. churns, mixes and grinds food to a liquid mass
17. _____ stomach  
    c. passes food to stomach
18. _____ small intestine  
    d. chews and mixes food with saliva
19. _____ liver  
    e. secretes enzymes that digest carbs, fat, and protein
20. _____ gallbladder  a. reabsorbs water and minerals
21. _____ pancreas  b. stores bile until needed
22. _____ large intestine  c. manufactures enzymes to digest all energy-yielding nutrients
d. stores waste prior to elimination
23. _____ rectum  e. Provides a carbohydrate digesting enzyme
24. _____ salivary gland

25. The liver converts all excess energy-containing nutrients into:
   a. glycogen
   b. protein
   c. fat
d. a and b
e. a and c

26. From mouth to rectum, the transit time of a meal is accomplished in:
   a. 0 - 7 days
   b. 1 - 3 days
c. 3 - 5 days
d. 5 - 7 days

27. The primary organ of digestion and absorption is the:
   a. mouth
   b. stomach
c. small intestine
d. large intestine

28. Which of the following is (are) characteristic(s) of liver glycogen?
   a. it is stored for the body's short-term needs for energy
   b. it can be released into the blood as glucose
c. it dwindles when no food is available
d. all of the above
e. b and c

29. Without food to replenish it, the liver's glycogen supply can be depleted within:
   a. 1 - 2 hours
   b. 4 - 6 hours
c. 4 - 10 hours
d. 6 - 9 hours

30. All nutrients are stored in the body in approximately the same quantities.
   a. true
   b. false
31. Which of the following is not one of the major storage systems which store and release energy to meet the cells need for energy between meals or if a person skips meals?
   a. liver
   b. muscles
   c. fat cells
   d. pancreas

32. A person can eat when hunger is absent because:
   a. the hypothalamus monitors the availability of nutrients
   b. the conscious mind of the cortex can override body signals
   c. the digestive tract sends messages to the hypothalamus
   d. the stomach intensifies its contractions and creates hunger pangs
   e. b and c

33. You have just consumed a meal very high in fat. As a result, hormonal messages will tell an organ to send _______ to assist in digestion of fats.
   a. bile
   b. bicarbonate
   c. hydrochloric acid
   d. mucus

34. The bones provide reserves of:
   a. energy
   b. calcium
   c. glycogen
   d. a and b
   e. b and c

35. A person in an emergency situation is unable to eat for several weeks. Which of the following would provide the energy which this person would need to survive?
   a. fat
   b. liver glycogen
   c. bones
   d. muscle glycogen

36. Which of the following statements is true regarding the timing of meals?
   a. timing is important because the digestive tract is unable to digest foods at certain times
   b. a meal should be consumed immediately before exercise to enhance physical work
   c. eating a meal late at night is desirable because it facilitates sleep
   d. timing of meals is important because it affects how a person feels
   e. fruits should be avoided 30 minutes prior to meals

37. Which of the following strategies should be used by someone experiencing heartburn?
   a. drink liquids with meals
   b. eat smaller meals
   c. relax while lying down after meals
   d. all of the above
38. Which of the following is needed at intervals throughout the day?
   a. vitamins
   b. caffeine
   c. minerals
   d. carbohydrate

39. The ways in which the human body handles food and physical activity:
   a. have changed dramatically during the past 20,000 years
   b. are essentially the same as those which characterized the Stone-age man
   c. have improved vastly in the last 100 years
   d. a and c
   e. b and c

40. People's diets today, as compared to those of the best-nourished people of the past, are:
   
   1. higher in concentrated sweets
   2. lower in calcium
   3. higher in fiber
   4. higher in sodium
   5. higher in fat
   6. lower in vitamin c

   a. 1, 3, and 5
   b. 2, 4, and 5
   c. 1, 2, 4, 5, and 6
   d. 2, 3, 4, 5, and 6
   e. 1, 2, 4, 5, and 6

41. The stomach mainly digests which nutrient?
   a. protein
   b. carbohydrates
   c. fat
   d. fiber

42. Which of the following are first to defend the body tissues against invaders?
   a. phagocytes
   b. c-cells
   c. t-cells
   d. b-cells

43. Which of the following advice would you give to a friend suffering from constipation?
   a. consume foods with adequate fiber
   b. drink enough water
   c. take a laxative
   d. a and b
   e. b and c

44. Which of the following types of cells do not reproduce, and if damaged by injury, disease, or alcohol/drug use are lost forever?
   a. skin cells
   b. red blood cells
   c. muscle cells
   d. brain cells
45. Alcohol affects body functions in all of the following ways except:
   a. alters amino acid metabolism
   b. slows down the synthesis of fatty acids
   c. weakens the body's defenses against infection
   d. causes symptoms like those of gout

46. Consuming antacids is the **best** cure for chronic heartburn.
   a. true
   b. false

47. If you see someone choking on food and he is unable to breathe you should?
   a. watch them choke
   b. encourage them to lie down on their back
   c. perform the Heimlich Maneuver
   d. b and c
   e. none of the above

48. Chemical digestion of which nutrient(s) begins in the mouth?
   a. carbohydrates
   b. fat
   c. protein
   d. all of the above
   e. none of the above

49. Which chemical substance released by the pancreas neutralizes stomach acid that has reached the small intestine?
   a. mucus
   b. enzymes
   c. bicarbonate
   d. bile
   e. all of the above

50. Which of the following is (are) part of the immune system?
   a. phagocytes
   b. T-cells
   c. B-cells
   d. antibodies
   e. all of the above

*Turn in the answers on a Scantron*