1. Which of the following makes up about 60 percent of the body’s weight?  C
   a. major minerals
   b. protein
   c. water
   d. trace mineral

2. The most beneficial source of fluid for us to consume is:  A
   a. plain drinking water, because it is readily available.
   b. carbonated beverages, because they have good flavor.
   c. tea or coffee, because caffeine helps maintain fluid in the body.
   d. fruit juice, because it has additional nutrients we need.

3. Which of the following is true about groundwater as a drinking water supply?  A
   a. it comes from deep, protected underground aquifers
   b. it is protected from new contaminants
   c. contaminants break down very quickly underground
   d. fast movement and aeration help keep it clean

4. Which of the following is the most abundant mineral in the body?  A
   a. calcium
   b. phosphorus
   c. sodium
   d. iron
5. The best source of phosphorus is:  
   a. animal protein.  
   b. fruit.  
   c. vegetable protein.  
   d. grain products.

6. The principal food source of chloride is:  
   a. salt.  
   b. animal products.  
   c. plants.  
   d. grains.

7. Which of the following stabilizes bones and makes teeth resistant to decay?  
   a. cadmium  
   b. chloride  
   c. fluoride  
   d. mercury

8. During an exercise activity the body will cool down by:  
   a. sweating to carry heat away from the surface of the body.  
   b. increasing urination to carry heat away through the kidneys.  
   c. drawing the blood away from the surface of the skin to let the body core cool it.  
   d. using the water from metabolism to cool the body core.

9. If a person has a deficient intake of calcium in the diet, what will be the result?  
   a. reduced absorption rate of calcium by the body  
   b. no change in levels of calcium in the blood because calcium will be pulled from the bones  
   c. a gain of body weight  
   d. lowered levels of calcium in the blood because the calcium in bone cannot be withdrawn
10. Bone strength in later life depends on: D
   a. the increased calcium absorption in the elderly.
   b. the increased production of estrogen after menopause.
   c. reducing physical activity to protect bones.
   d. the formation of dense bones during youth.

11. Waist circumference indicates visceral fatness, and above a certain girth, disease risks rise, even when BMI values are normal. A
   a. True
   b. False

12. All of the following are risks from being underweight except: B
   a. thin people die first during a famine or siege.
   b. thin people develop heart disease more often.
   c. thin people with cancer die of starvation rather than the cancer.
   d. thin people are at a disadvantage in the hospital after surgery.

13. Excess fat around the ____ represents a greater risk to health than excess fat elsewhere on the body. B
   a. hips
   b. central abdominal area
   c. shoulders
   d. chest

14. A body mass index of 25.0 to 29.9 in an adult indicates: B
   a. normal weight.
   b. overweight.
   c. underweight.
   d. obesity.
15. One pound of body fat is equal to _____ calories.  C
   a. 2500
   b. 3000
   c. 3500
   d. 4000

16. The hormone produced by adipose tissue in response to body fat production that helps to control obesity is:  C
   a. endorphin.
   b. ghrelin.
   c. leptin.
   d. insulin.

17. The psychological desire to eat is referred to as:  B
   a. satiety.
   b. appetite.
   c. hunger.
   d. obesity.

18. The three kinds of energy nutrients can be stored in the body as:  D
   a. glycogen.
   b. water.
   c. fat.
   d. a and c
   e. a and b
19. One of the major benefits of physical activity for weight management is:  **B**
   a. an increase in appetite immediately after exercise.
   b. an increase in lean muscle tissue, which burns more energy.
   c. being able to eat high-calorie snacks.
   d. significantly raising the BMR for several hours after exercise.

20. The major role that the hormone ghrelin plays in eating is to:  **A**
   a. signal hunger on an empty stomach.
   b. signal appetite when receiving external stimuli.
   c. signal satiation when the stomach is full.
   d. signal satiety several hours after a meal.

21. People who regularly engage in physical activity live longer on average than those who are physically inactive.  **A**
   a. True
   b. False

22. To emphasize muscle endurance in weight training, you would combine less resistance (lighter weights) with more repetitions.  **A**
   a. True
   b. False

23. Most athletes probably need somewhat more protein than do sedentary people.  **A**
   a. True
   b. False

24. Iron-deficiency anemia impairs physical performance because iron helps deliver the muscles’ oxygen.  **A**
   a. True
   b. False
25. Examples of aerobic physical activity include all of the following except: **B**
   a. brisk walking.
   b. using weight machines.
   c. swimming.
   d. bicycling.

26. Which of the following is **not** a component of fitness? **C**
   a. flexibility
   b. muscle strength
   c. balance
   d. muscle endurance
   e. cardiorespiratory endurance

27. Which of the following enhances flexibility? **D**
   a. weight training
   b. aerobic activity
   c. calisthenics
   d. stretching

28. Muscles respond to the overload of exercise by gaining: **E**
   a. strength.
   b. fat.
   c. size.
   d. a and b
   e. a and c

29. Weight training results in all of the following except: **D**
   a. improved posture.
   b. muscle strength and endurance.
   c. prevention and management of chronic diseases.
30. In the early minutes of an activity, __C___ provides the majority of energy the muscles use to go into action.
   a. fat
   b. liver glycogen
   c. muscle glycogen
   d. protein

31. Anaerobic glucose breakdown produces a compound called __B___ that accumulates in the tissues and blood.
   a. urea
   b. lactate
   c. uric acid
   d. amino acid

32. The role of lactate in enhancing muscle gain is to:  C
   a. raise blood pH to indicate that muscles have not worked enough.
   b. restrict release of testosterone and growth hormone.
   c. stimulate muscle growth from resistance exercise.
   d. cause muscle fatigue as it builds up in the blood.

33. Strategies which help endurance athletes maintain their blood glucose concentrations for as long as they can include: D
   a. eating a high-carbohydrate diet regularly.
   b. taking in glucose during endurance activities.
   c. consuming fat and protein before the event.
   d. a and b
   e. b and c
34. A person who continues exercising moderately for longer than __D___ minutes begins to use less glucose and more fat for fuel.

a. 5
b. 10
c. 15
d. 20

35. The most important antioxidant related to physical activity is:  A

a. vitamin E.
b. beta carotene.
c. vitamin C.
d. folate.

36. Which of the following are most prone to iron deficiency?  D

a. female athletes
b. endurance athletes
c. power athletes
d. a and b
e. b and c

37. The first symptom of dehydration (besides thirst) is:  D

a. hypoglycemia.
b. heavy breathing.
c. heat stroke.
d. fatigue.

38. The body’s need for __B___ far surpasses that for any other nutrient.

a. fat
b. water
c. carbohydrate
d. protein
39. An endurance athlete can lose __C__ of fluid an hour.
   a. 4 cups
   b. 3 pints
   c. 1.5 quarts
   d. 2.5 gallons

40. Sports drinks offer some advantages over water for athletes who:  A
   a. need to replenish electrolytes.
   b. are older.
   c. exercise outside in cold weather.
   d. a and b
   e. b and c

41. Moderate use of caffeine by athletes:  A
   a. may assist performance
   b. slows down reactions.
   c. depletes glycogen stores.
   d. has no adverse effects.

42. Energy density and nutrient density are the same concepts  B
   a. True
   b. False