Questions Ch 6

1. The total number of kilocalories in a snack that contains 15 g of carbohydrate, 5 g of protein, and 4 g of fat is
   A. 24.  
   B. 96.  
   C. 116.  
   D. 216.

2. In clinical practice, the most accurate way to measure basal or resting energy expenditure is to use
   A. a treadmill.  
   B. thyroid hormone levels.  
   C. activity diaries.  
   D. indirect calorimetry.

3. The increase in metabolic rate after a meal is called
   A. satiety.  
   B. the metabolic stimulus.  
   C. the thermic effect of food.  
   D. the postmeal effect.

4. When energy expenditure exceeds energy intake, the result is
   A. anorexia.  
   B. weight loss.  
   C. obesity.  
   D. hyperactivity.

5. Energy density means the
   A. total amount of energy in a food.  
   B. availability of the energy in a food.  
   C. concentration of energy in a given amount of food. Correct  
   D. concentration of nutrients in a given amount of food.

6. Energy stores in the body include
   A. glucose.  
   B. glycogen.  
   C. free fatty acids.  
   D. dipeptides.

7. The amount of energy required by the body for maintenance of life when a person is at complete digestive, physical, and emotional rest is referred to as
   A. recommended dietary intake.  
   B. estimated energy expenditure.  
   C. daily energy requirement.  
   D. basal energy expenditure.

8. A person with an underactive thyroid would have
   A. an increased energy need.  
   B. a decreased energy need.  
   C. an increased protein need.  
   D. a decreased protein need.

9. Total energy requirement involves a contribution from resting metabolic rate, physical activity, and
   A. breathing.  
   B. the amount of vitamin intake.  
   C. normal body temperature.  
   D. thermic effect of food.

10. For the elderly, food choices should reflect a decline in caloric density and a greater emphasis on
    A. weight loss.  
    B. increased dietary fiber intake.  
    C. increased nutrient density.  
    D. decreased nutrient density.

11. A fever can increase basal metabolic rate by approximately
    A. 5.5% for each 1° F.  
    B. 6.25% for each 1° F.  
    C. 7.0% for each 1° F.  
    D. 9.0% for each 1° F.

12. Calculate the basal metabolic rate for a man who is 165 lbs.
    A. 1650 kcal  
    B. 1800 kcal  
    C. 1950 kcal  
    D. 3960 kcal
13. Of the following, the person who would be expected to have the highest energy needs per unit of body weight would be 
A. 70-year-old woman in a nursing home.
B. 32-year-old pregnant woman.
C. 42-year-old man who works in an office.
D. 92-year-old man who lives at home and gardens.

14. Of the following, the food item that has the highest energy value per unit of weight is 
A. a baked potato.
B. bacon.
C. toast.
D. 2% milk.

15. The sum of body processes involved in converting food into energy is called 
A. digestion.
B. absorption.
C. metabolism.
D. basal energy expenditure.

Questions Ch 7

1. A deficiency of vitamin A may result in 
A. pernicious anemia.
B. osteomalacia.
C. bleeding gums.
D. night blindness.

2. The requirement for vitamin E varies with the amount of 
A. iron in the diet.
B. exercise.
C. physical and emotional stress.
D. polyunsaturated fatty acids in the diet.

3. An athlete who increases his or her intake of pasta will also increase his or her need for  
A. vitamin E.
B. thiamin.
C. vitamin B12.
D. vitamin C.

4. Of the following, the best source of riboflavin is 
A. milk.
B. fish.
C. fortified breakfast cereal.
D. yellow and orange vegetables.

5. The vitamin most closely associated with protein metabolism is 
A. vitamin B12.
B. vitamin C.
C. vitamin D.
D. pyridoxine.

6. The nutrient intake guideline that sets the maximal nutrient intake that is unlikely to pose a risk of toxicity in healthy individuals is called 
A. Recommended Dietary Allowances (RDA).
B. Estimated Average Requirement (EAR).
C. Adequate Intake (AI).
D. Tolerable Upper Intake Level (UL).

7. A significant source of vitamin A is found in 
A. spinach.
B. whole-grain bread.
C. oats.
D. brewer’s yeast.

8. The active form of vitamin D is called 
A. cholecalciferol.
B. cholesterol.
C. calcitriol.
D. ergocalciferol.

9. The most potent fat-soluble antioxidant is 
A. alpha-tocopherol.
B. phylloquinone.
C. cholecalciferol.
D. pyridoxine.
<table>
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<tr>
<th>Question</th>
<th>Answer</th>
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<tbody>
<tr>
<td>10. A vitamin deficiency disease caused by a lack of vitamin C is called</td>
<td>A. beriberi.</td>
</tr>
<tr>
<td>11. Of the following, the person most likely to develop vitamin B12 deficiency is</td>
<td>A. a middle-aged man who has recently lost 30 lbs.</td>
</tr>
<tr>
<td>12. A vitamin that plays a major role in blood clotting is</td>
<td>A. vitamin K.</td>
</tr>
<tr>
<td>13. Noncaloric essential nutrients necessary in very small amounts for specific metabolic control and disease prevention are called</td>
<td>A. minerals.</td>
</tr>
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<td>14. Vitamins regulate body metabolism by working as</td>
<td>A. protein modulators.</td>
</tr>
<tr>
<td>15. A deficiency of folate may result in</td>
<td>A. beriberi.</td>
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Questions ch 8

<table>
<thead>
<tr>
<th>Question</th>
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<tbody>
<tr>
<td>1. A food that is a good source of calcium is</td>
<td>A. chicken breast.</td>
</tr>
<tr>
<td>2. An important function of sodium is</td>
<td>A. temperature regulation.</td>
</tr>
<tr>
<td>3. High potassium intake tends to</td>
<td>A. increase metabolic rate.</td>
</tr>
<tr>
<td>4. The trace element needed by the body for antibody production, carotene conversion to vitamin A, and hemoglobin formation is</td>
<td>A. phosphorus.</td>
</tr>
<tr>
<td>5. An example of a low-sodium food is</td>
<td>A. tomato juice.</td>
</tr>
<tr>
<td>6. An example of a trace element is</td>
<td>A. calcium.</td>
</tr>
<tr>
<td>7. Thyroid-stimulating hormone controls the uptake of</td>
<td>A. zinc.</td>
</tr>
</tbody>
</table>
8. Major minerals are
A. the minerals that are essential for body functions.
B. the minerals that are most likely to be lacking in the diet.
C. required by the body in amounts of more than 100 mg/day.
D. important dietary minerals for reducing risk of chronic disease.

9. The mineral that is essential for the formation of fibrin to cause a blood clot is
A. phosphorus.
B. calcium.
C. cholecalciferol.
D. vitamin K.

10. The mineral necessary for the controlled oxidation of carbohydrate, fat, and protein in producing and storing available energy for the body is
A. potassium.
B. chloride.
C. calcium.
D. phosphorus.

11. The major electrolyte found inside cells is
A. sodium.
B. phosphorus.
C. potassium.
D. magnesium.

12. The mineral that is a catalyst for many reactions in cells that produce energy is
A. sodium.
B. magnesium.
C. phosphorus.
D. sulfur.

13. Iron plays a role in
A. hemoglobin synthesis. Correct
B. muscle action.
C. digestion.
D. respiration.

14. The greatest source of dietary zinc is
A. meat.
B. vegetables.
C. dairy.
D. fruit.

15. A mineral that is added to the water supply to help prevent dental caries is
A. phosphorus.
B. calcium.
C. fluoride.
D. potassium.

Questions Ch 9

1. A mineral that occurs mostly in the extracellular fluid is
A. potassium.
B. sodium.
C. magnesium.
D. phosphorus.

2. A shared function of plasma proteins, glucose, electrolytes, and sodium is
A. regulation by the liver.
B. balance of water between body compartments.
C. regulation of energy balance.
D. control of nerve conduction.

3. An ion that possesses a negative charge is a(n)
A. electrolyte.
B. cation.
C. anion.
D. acid.

4. Ways in which water and solutes move across membranes include
A. diffusion and filtration.
B. exchange and evaporation.
C. metabolism and regulation.
D. reabsorption and recycling.

5. The kidneys “launder” (or clean) the blood by
A. selective excretion.
B. filtration.
C. reabsorption.
D. hydration.
6. The body’s state of relative dynamic equilibrium within the body’s internal environment is called
   A. maintenance.
   B. homeostasis.
   C. metabolic equilibrium.
   D. nitrogen balance.

7. The fluid surrounding the tissues outside the cells is called
   A. interstitial fluid.
   B. intracellular fluid.
   C. lymphatic fluid.
   D. extracellular fluid.

8. The major electrolyte found guarding the water outside of the cells is
   A. potassium.
   B. chloride.
   C. sodium.
   D. magnesium.

9. The average daily amount of fluid from beverages (in addition to the fluid in food) required by men and women, respectively, is
   A. 6 and 9 cups.
   B. 9 and 12 cups.
   C. 10 and 14 cups.
   D. 12 and 15 cups.

10. The large molecules retained in the blood vessels that control water movement in the body and guard blood volume by influencing the shift of water in and out of capillaries are
    A. proenzymes.
    B. trace elements.
    C. electrolytes.

11. Water leaves the body mainly through the
    A. lungs.
    B. feces.
    C. kidneys.
    D. skin.

12. Absorption of particles in solution from an area of low concentration to an area of high concentration is accomplished by
    A. osmosis.
    B. active transport.
    C. diffusion.
    D. pinocytosis.

13. Body performance is adversely affected when body weight decreases by
    A. 1%.
    B. 3%.
    C. 5%.
    D. 10%.

14. The hormone that causes the kidney to reabsorb water is
    A. antidiuretic hormone.
    B. aldosterone.
    C. thyroid hormone.
    D. parathyroid hormone.

15. The acid-base buffer system is mainly controlled by the
    A. lungs and liver.
    B. lungs and kidneys.
    C. kidneys and skin.
    D. lungs and skin.

Questions Ch 12
1. Biologic processes associated with aging may cause
   A. increased bone density.
   B. increased muscle tone.
   C. increased ratio of adipose to muscle tissue.
   D. increased kidney function.

2. Older adults may need to take supplements of
   A. zinc.
   B. vitamin B12.
   C. vitamin C.
   D. essential fatty acids.
3. An older adult is most likely to have inadequate nutrient intake if he or she lives
   A. in an assisted living facility.
   B. with his/her spouse.
   C. alone.
   D. with a son or daughter.
4. Factors that contribute to malnutrition in older adults include
   A. a decline in kidney function.
   B. loss of teeth or poorly fitting dentures.
   C. eating snacks between meals.
   D. increased vitamin requirements.
5. Dehydration is more common in older adults than in younger adults because
   A. they may forget to finish beverages.
   B. the thirst mechanism diminishes.
   C. fluid may accumulate in the extremities.
   D. water losses during respiration are increased.
6. The development stage for an adult 47 years of age is
   A. very young adult.
   B. young adult.
   C. middle adult.
   D. older adult.
7. The disorder in which bone mineral density is low and bones become brittle is called
   A. osteoporosis.
   B. osteomalacia.
   C. osteopenia.
   D. rickets.
8. During the aging process, basal metabolic rate declines every decade at a rate of
   A. 1% to 2%.
   B. 2% to 3%.
   C. 3% to 5%.
   D. 5% to 10%.
9. As a person ages, lack of exercise contributes to
   A. anemia.
   B. labored breathing.
   C. loss of skeletal muscle mass.
   D. kidney failure.
10. Adults need more protein than usual when
    A. they are exercising regularly.
    B. they experience stressful life events.
    C. they are recovering from illness.
    D. their blood pressure is high.
11. The primary nutrition problem in older adults is
    A. drug-nutrient interactions.
    B. preference for sweet foods.
    C. malnutrition.
    D. loss of memory and motor control.
12. Decreased absorption of nutrients in the elderly is caused by
    A. diminished secretion of digestive juices and gastrointestinal muscle motility.
    B. increased secretion of digestive juices and gastrointestinal muscle motility.
    C. diminished secretion of enterokinase and pepsin.
    D. indigestion and constipation.
13. Home-delivered meals are available for older adults who are
    A. living in poverty.
    B. ill or disabled.
    C. living alone.
    D. following a special diet.
14. Poor dentition (number of teeth) in the older adult can lead to
A. chronic kidney failure.
B. poor overall nutritional status.
C. increased oral cavity bacteria.
D. metabolic bone disease.

15. As people age, total energy needs
A. increase each decade of life after the age of 30 years.
B. slowly decline throughout the aging process.
C. remain the same until the age of 70 years.
D. decrease by 25% after the age of 45 years.