

## **Test Bank<sup>1</sup> for *Nutrition: Your Life Science 1e***

### **Module 1 – Nutrition Basics**

#### **Question Information Key**

ANS = correct answer

REF = page reference

TOP = module section

### **Exam A**

#### **True/False**

1. Health is complete physical, mental, and social well-being, not just the absence of infirmity.

ANS: T

REF: 5

TOP: 1.1

2. Malnutrition refers to the impairment of health resulting only from nutrient deficiency.

ANS: F

REF: 7

TOP: 1.1

3. Alcohol is a central nervous system depressant.

ANS: T

REF: 8

TOP: 1.1

4. Combining rice with vegetables is an example of protein complementation.

ANS: T

REF: 18

TOP: 1.3

5. Minerals are organic compounds.

ANS: F

REF: 30

TOP: 1.5

6. Linoleic acid is an essential fatty acid.

ANS: T

REF: 22

TOP: 1.4

7. Polyunsaturated fatty acids contain more than one double bond between the carbon molecules.

ANS: T

REF: 22

TOP: 1.4

8. Cholesterol is an essential nutrient.

ANS: F

REF: 27

TOP: 1.4

9. If a mineral is found in the adult reference male body at a level of 2.4 grams, then it would be considered a major mineral.

ANS: F

REF: 31

TOP: 1.5

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<sup>1</sup> By Jennifer Turley and Joan Thompson of Weber State University. Four alternate forms of the exam for this module (A, B, C, and D) plus a practice exam, each with unique questions, are included in this document. Ready-to-print versions of each (without answers) are provided at the end of this document.

10. Plant proteins are incomplete, low-quality proteins that are limited in one or more essential amino acids.

ANS: T                      REF: 18                      TOP: 1.3

11. Dietary fat intake should be as low as possible for optimal health.

ANS: F                      REF: 23                      TOP: 1.4

12. Fats high in polyunsaturated fatty acids are solid at room temperature.

ANS: F                      REF: 22                      TOP: 1.4

13. Cellulose is non-caloric because it is a fiber.

ANS: T                      REF: 13                      TOP: 1.2

14. Fruit provides a carbohydrate food source.

ANS: T                      REF: 14                      TOP: 1.2

15. The essential fatty acids are polyunsaturated.

ANS: T                      REF: 22                      TOP: 1.4

16. Cheese provides a source of incomplete, low-quality protein.

ANS: F                      REF: 19                      TOP: 1.3

17. Soybeans provide a source of cholesterol and phospholipids.

ANS: F                      REF: 26                      TOP: 1.4

18. Adenosine triphosphate is produced inside the cell nucleus.

ANS: F                      REF: 6                      TOP: 1.1

19. Dietary fibers are complex carbohydrates.

ANS: T                      REF: 12                      TOP: 1.2

20. Hunger is the physiological need for food.

ANS: T                      REF: 8                      TOP: 1.1

### **Matching**

*Match the energy-yielding food component with its energy yield. Choose the best answer. You may use some answers more than once or not at all.*

- A. 0 Calories per gram
- B. 2 Calories per gram
- C. 4 Calories per gram
- D. 7 Calories per gram
- E. 9 Calories per gram

1. Sucrose provides:
2. Alcohol provides:
3. Protein provides:
4. Triglycerides provide:
5. Vitamins provide:

**Answers:**

- |           |             |                |
|-----------|-------------|----------------|
| 1. ANS: C | REF: 4   12 | TOP: 1.1   1.2 |
| 2. ANS: D | REF: 8   15 | TOP: 1.1   1.2 |
| 3. ANS: C | REF: 4   17 | TOP: 1.1   1.3 |
| 4. ANS: E | REF: 4   21 | TOP: 1.1   1.4 |
| 5. ANS: A | REF: 4   29 | TOP: 1.1   1.5 |

*Match the short phrase or term with the associated short phrase or term. Choose the best answer. You may use some answers more than once or not at all.*

- A. Tissue repair
  - B. Medium for metabolism
  - C. Preferred and fastest energy source
  - D. Enzyme cofactor
  - E. Cell membranes
6. Function of carbohydrates
  7. Function of phospholipids
  8. Function of water

**Answers:**

- |           |         |          |
|-----------|---------|----------|
| 6. ANS: C | REF: 12 | TOP: 1.2 |
| 7. ANS: E | REF: 25 | TOP: 1.4 |
| 8. ANS: B | REF: 32 | TOP: 1.5 |

**Multiple Choice**

1. What is food?
  - A. Anything that enters the body through the mouth
  - B. Substances nonessential for the body
  - C. Anything that nourishes the body
  - D. Substances that provide fiber
  - E. The medium for metabolism

ANS: C	REF: 3	TOP: 1.1
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2. Which of the following is a macronutrient?
  - A. Minerals
  - B. Vitamins
  - C. Protein
  - D. A and B
  - E. A, B, and C

ANS: C	REF: 5	TOP: 1.1
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3. The nutritional science definition of *organic* is:
- A. chemically free.
  - B. hydrogenated.
  - C. water bound.
  - D. living.
  - E. carbon containing.

ANS: E

REF: 12

TOP: 1.2

4. A person who consumes an inadequate amount of protein may:
- A. have less potential for tissue repair.
  - B. experience greater kinetic energy.
  - C. become deficient in cholesterol.
  - D. age more gracefully.
  - E. lack the preferred fuel source.

ANS: A

REF: 17

TOP: 1.3

5. Which of the following is an essential and inorganic nutrient?
- A. Linoleic acid
  - B. Folic acid
  - C. Iodine
  - D. Cellulose
  - E. Lecithin

ANS: C

REF: 30|31

TOP: 1.5

6. Which of the following is an essential and organic nutrient?
- A. Cholesterol
  - B. Oleic acid
  - C. Manganese
  - D. Thiamin
  - E. Water

ANS: D

REF: 28|29

TOP: 1.5

7. Which fatty acids have no carbon-carbon double bonds?
- A. Saturated fatty acids
  - B. Monounsaturated fatty acids
  - C. Polyunsaturated fatty acids
  - D. *Trans* fatty acids
  - E. *Cis* fatty acids

ANS: A

REF: 21

TOP: 1.4

8. Longevity is affected by:
- A. diet.
  - B. exercise.
  - C. habits such as smoking and alcohol consumption.
  - D. A and B only
  - E. A, B and C

ANS: E

REF: 8

TOP: 1.1

9. Which of the following is a characteristic of a sound diet?

- A. Adequacy
- B. Balance
- C. Moderation
- D. Variety
- E. All of the above

ANS: E

REF: 7

TOP: 1.1

10. Satiety is best described as the:

- A. feeling of fullness.
- B. need to eat.
- C. desire for food.
- D. process of drinking water.
- E. state of complete wellbeing.

ANS: A

REF: 8

TOP: 1.1

11. Which statement(s) is/are true about water?

- A. It is an organic compound.
- B. Deficiency can occur rapidly.
- C. An adequate intake for all adults is 0.5 milliliters per Calorie expended.
- D. A and B are true.
- E. A, B, and C are true.

ANS: B

REF: 32

TOP: 1.5

12. Which statement(s) is/are true regarding energy-producing nutrients?

- A. Energy-producing nutrients are organic compounds.
- B. Energy-producing nutrients are inorganic compounds.
- C. Energy-producing nutrients are elements.
- D. Protein, carbohydrate, and fat are energy-producing nutrients.
- E. Both A and D are true statements.

ANS: E

REF: 5 | 12 | 17 | 20

TOP: 1.1 | 1.2 | 1.3 | 1.4

13. Which element can be found in amino acids but not fatty acids?

- A. Hydrogen
- B. Zinc
- C. Nitrogen
- D. Selenium
- E. Oxygen

ANS: C

REF: 17 | 20

TOP: 1.3 | 1.4

14. What are the three most common disaccharides consumed in the diet?

- A. Fructose, sucrose, ribose
- B. Fructose, glucose, galactose
- C. Sucrose, maltose, lactose
- D. Maltose, glucose, fructose
- E. Amylose, cellulose, sucrose

ANS: C

REF: 12

TOP: 1.2

15. Food sources of carbohydrate include:

- A. milk.
- B. cereal.
- C. fruit.
- D. All of the above
- E. None of the above

ANS: D

REF: 14

TOP: 1.2

16. How are lipids/fats categorized?

- A. Simple and complex
- B. Complete and incomplete
- C. Saturated and unsaturated
- D. Major and trace
- E. Triglycerides, phospholipids, and sterols

ANS: E

REF: 20

TOP: 1.4

17. How are carbohydrates categorized?

- A. Simple and complex
- B. Complete and incomplete
- C. Organic and inorganic
- D. Major and trace
- E. Digestible and indigestible

ANS: A

REF: 12

TOP: 1.2

18. The two categories of amino acids are:

- A. essential amino acids and non-essential amino acids.
- B. complete amino acids and incomplete amino acids.
- C. branched-chain amino acids and sulfur-containing amino acids.
- D. water-soluble amino acids and fat-soluble amino acids.
- E. macro-amino acids and micro-amino acids.

ANS: A

REF: 17

TOP: 1.3

19. Which of the following answers includes only water-soluble vitamins?

- A. Thiamin, niacin, riboflavin, vitamin C
- B. Niacin, biotin, zinc, choline
- C. Thiamin, chromium, riboflavin, vitamin B<sub>6</sub>
- D. Vitamin B<sub>12</sub>, vitamin E, vitamin C, biotin
- E. Folate, iron, vitamin C, zinc

ANS: A

REF: 29

TOP: 1.5

20. Which of the following answers includes only major minerals?

- A. Iron, zinc, and magnesium
- B. Sodium, potassium, and chloride
- C. Calcium, phosphorus, and selenium
- D. Magnesium, copper, and zinc
- E. Fluoride, iodine, and chromium

ANS: B

REF: 31

TOP: 1.5

21. Which type of fatty acid is found at high levels in olive oil?

- A. Saturated fatty acids
- B. Monounsaturated fatty acids
- C. Polyunsaturated fatty acids
- D. *Trans* fatty acids
- E. Monoglycerides

ANS: B

REF: 21

TOP: 1.4

22. Of the energy-producing nutrients, \_\_\_\_\_ could be consumed as the lowest percentage of total Calories within the recommended dietary intake level.

- A. Carbohydrate
- B. Minerals
- C. Fat
- D. Protein
- E. Vitamins

ANS: D

REF: 14 | 19 | 23

TOP: 1.2 | 1.3 | 1.4

## Exam B

### **True/False**

1. Appetite is defined as the psychological desire for food.  
ANS: T                      REF: 8                      TOP: 1.1
2. Malnutrition can include excessive intake of a nutrient.  
ANS: T                      REF: 7                      TOP: 1.1
3. Cellulose is a phospholipid.  
ANS: F                      REF: 13                      TOP: 1.2
4. Combining fruit and vegetables is an example of protein complementation.  
ANS: F                      REF: 18                      TOP: 1.3
5. Alpha-linolenic acid is an essential fatty acid.  
ANS: T                      REF: 22                      TOP: 1.4
6. A lack of daily physical activity reduces longevity.  
ANS: T                      REF: 8                      TOP: 1.1
7. Sources of fat with high amounts of saturated fatty acids are solid at room temperature.  
ANS: T                      REF: 21                      TOP: 1.4
8. Adequate amounts of cholesterol are synthesized by the adult human liver.  
ANS: T                      REF: 26|27                      TOP: 1.4
9. If a mineral is found in the adult reference body at a level of 6.4 grams, then it would be considered a major mineral.  
ANS: T                      REF: 31                      TOP: 1.5
10. Animal proteins are complete proteins.  
ANS: T                      REF: 19                      TOP: 1.3
11. Cholesterol can be used to make bile within the human body.  
ANS: T                      REF: 26                      TOP: 1.4
12. Organic compounds contain the element carbon.  
ANS: T                      REF: 12                      TOP: 1.2



13. Appetite is the psychological desire for food.

ANS: T REF: 8 TOP: 1.1

14. Vitamins can function in acid-base balance.

ANS: F REF: 29 | 30 TOP: 1.5

15. The human body can make essential nutrients.

ANS: F REF: 6 TOP: 1.1

16. Water is an inorganic compound.

ANS: T REF: 32 TOP: 1.5

17. Humans are comprised of cells of the same type throughout the body.

ANS: F REF: 5 TOP: 1.1

18. When a person is thirsty s/he is not yet dehydrated.

ANS: F REF: 33 TOP: 1.5

19. Food is anything edible that nourishes the body.

ANS: T REF: 3 TOP: 1.1

20. For optimal health, a majority of Calories in the diet should come from protein.

ANS: F REF: 14 | 19 TOP: 1.2 | 1.3

### **Matching**

*Match the energy-yielding food component with its energy yield. Choose the best answer. You may use some answers more than once or not at all.*

- A. 0 Calories per gram
- B. 2 Calories per gram
- C. 4 Calories per gram
- D. 7 Calories per gram
- E. 9 Calories per gram

- 1. Fructose provides:
- 2. Starch provides:
- 3. Cellulose provides:
- 4. Triglycerides provide:
- 5. Calcium provides:
- 6. Animal protein provides:

### **Answers:**

- 1. ANS: C REF: 4 | 12 TOP: 1.1 | 1.2
- 2. ANS: C REF: 4 | 12 TOP: 1.1 | 1.2
- 3. ANS: A REF: 13 TOP: 1.2
- 4. ANS: E REF: 4 | 21 TOP: 1.1 | 1.4
- 5. ANS: A REF: 4 | 30 | 31 TOP: 1.1 | 1.5

6. ANS: C

REF: 4|17

TOP: 1.1|1.3

*Match the short phrase or term with the associated short phrase or term. Choose the best answer. You may use some answers more than once or not at all.*

- A. Contain nitrogen
- B. Contain alpha-linked glucose
- C. Are inorganic and needed in tiny amounts
- D. Are organic and needed in tiny amounts
- E. Form membrane bilayers

7. Digestible polysaccharides:

8. Proteins:

9. Phospholipids:

10. Minerals:

11. Vitamins:

**Answers:**

7. ANS: B

REF: 13

TOP: 1.2

8. ANS: A

REF: 17

TOP: 1.3

9. ANS: E

REF: 25

TOP: 1.4

10. ANS: C

REF: 30|31

TOP: 1.5

11. ANS: D

REF: 28

TOP: 1.5

**Multiple Choice**

1. Six ounces of red table wine contains 20 grams of alcohol. How many Calories from alcohol is this?

- A. 40
- B. 80
- C. 110
- D. 140
- E. 180

ANS: D

REF: 15

TOP: 1.2

2. Which answer best defines dietary moderation?

- A. No unwanted substance in excess
- B. A mixture of food groups
- C. Foods that maintain a healthy body weight
- D. Different foods used for the same purpose
- E. Impairment of health from toxicity

ANS: A

REF: 7

TOP: 1.1

3. Which of the following factors affect food choices?

- A. Food availability
- B. Taste preference
- C. Cultural traditions
- D. Social/economic status
- E. All of these

ANS: E

REF: 8-10

TOP: 1.1

4. Which statement(s) is/are true about water?
- A. It is the medium for metabolism.
  - B. It is found in beverages but not foods.
  - C. It is converted to adenosine triphosphate.
  - D. A and B are true.
  - E. A, B, and C are true.

ANS: A

REF: 32

TOP: 1.5

5. Which of the following statements is false regarding energy-producing nutrients?
- A. Energy-producing nutrients may include organic compounds.
  - B. Energy-producing nutrients may be found in all food groups.
  - C. Vitamins are energy-producing nutrients.
  - D. Protein can be an energy-producing nutrient.
  - E. Fat provides the highest amount of energy per gram.

ANS: C

REF: 4 | 29

TOP: 1.1 | 1.5

6. Which statement is false regarding polyunsaturated fatty acids?
- A. They contain more than one double bond.
  - B. The essential fatty acids are polyunsaturated.
  - C. They are liquid at room temperature.
  - D. They are concentrated in animal food sources.
  - E. They provide 9 Calories per gram.

ANS: D

REF: 22

TOP: 1.4

7. Which of the following answers includes polysaccharides?
- A. Fructose, sucrose
  - B. Fructose, galactose
  - C. Sucrose, lactose
  - D. Maltose, glucose
  - E. Starch, fiber

ANS: E

REF: 12

TOP: 1.2

8. An excellent food source of complete protein is:
- A. seafood.
  - B. cooking oils.
  - C. fruits.
  - D. vegetables.
  - E. grains.

ANS: A

REF: 19

TOP: 1.3

9. How are carbohydrates categorized?
- A. Simple and complex
  - B. Complete and incomplete
  - C. Fat soluble and water soluble
  - D. Major and trace
  - E. Caloric and noncaloric

ANS: A

REF: 12

TOP: 1.2

10. How are vitamins categorized?
- A. Simple and complex
  - B. Complete and incomplete
  - C. Fat soluble and water soluble
  - D. Major and trace
  - E. Triglycerides, phospholipids, and sterols

ANS: C

REF: 29

TOP: 1.5

11. The two categories of amino acids are:
- A. essential amino acids and non-essential amino acids.
  - B. animal amino acids and plant amino acids.
  - C. acid-containing amino acids and base-containing amino acids.
  - D. water-soluble amino acids and fat-soluble amino acids.
  - E. macro-amino acids and micro-amino acids.

ANS: A

REF: 17

TOP: 1.3

12. Which of the following answers includes three vitamins and one mineral?
- A. Thiamin, niacin, riboflavin, vitamin C
  - B. Niacin, biotin, riboflavin, choline
  - C. Thiamin, pantothenic acid, riboflavin, vitamin B<sub>6</sub>
  - D. Vitamin B<sub>12</sub>, vitamin E, vitamin C, biotin
  - E. Folate, molybdenum, vitamin C, thiamin

ANS: E

REF: 29|31

TOP: 1.5

13. Which of the following answers includes only trace minerals?
- A. Iron, zinc, and magnesium
  - B. Sodium, potassium, and chloride
  - C. Calcium, phosphorus, and selenium
  - D. Magnesium, copper, and zinc
  - E. Fluoride, iodine, and chromium

ANS: E

REF: 31

TOP: 1.5

14. The oil from peanuts is composed of predominately \_\_\_\_ fatty acids:
- A. saturated and conjugated
  - B. polyunsaturated and monounsaturated
  - C. saturated and monounsaturated
  - D. saturated and polyunsaturated
  - E. monounsaturated and *trans*

ANS: B

REF: 24

TOP: 1.4

15. Which of the following answers includes only vitamins?
- A. Vitamin C, pantothenic acid, and chromium
  - B. Biotin, iron, and folate
  - C. Zinc, vitamin K, and linoleic acid
  - D. Thiamin, riboflavin, and niacin
  - E. Cholecalciferol, calcium, and copper

ANS: D

REF: 29

TOP: 1.5

16. Which of the following is not a function of minerals in the human body?

- A. Bone structure
- B. Coenzyme
- C. pH balance
- D. Emulsifier
- E. Fluid regulation

ANS: D

REF: 30

TOP: 1.5

17. Which statement below is true about saturated fatty acids?

- A. They contain double bonds.
- B. They are healthy when eaten in moderation.
- C. They are essential.
- D. They are disease promoting when eaten in excess.
- E. They are converted to *trans* fatty acids.

ANS: D

REF: 21

TOP: 1.4

18. A Calorie is a measure of \_\_\_\_\_ in food.

- A. fiber
- B. energy
- C. nutrient density
- D. water content
- E. fat

ANS: B

REF: 3

TOP: 1.1

19. Which food provides an animal source of carbohydrate?

- A. Chicken
- B. Fish
- C. Milk
- D. Wheat
- E. Eggs

ANS: C

REF: 14

TOP: 1.2

## Exam C

### **True/False**

1. The term *health* means a person has no contagious diseases.  
ANS: F                      REF: 5                      TOP: 1.1
2. Dietary protein is the preferred fuel source for the human body.  
ANS: F                      REF: 12                      TOP: 1.2
3. To be an organic compound, the compound must contain the element nitrogen.  
ANS: F                      REF: 12                      TOP: 1.2
4. Satiety is more psychological than physiological.  
ANS: F                      REF: 8                      TOP: 1.1
5. Nonessential amino acids provide 4 Calories per gram.  
ANS: T                      REF: 17                      TOP: 1.3
6. Incomplete proteins are found in grain-based food sources.  
ANS: T                      REF: 18                      TOP: 1.3
7. Triglycerides, phospholipids, and sterols contain 9 Calories per gram.  
ANS: F                      REF: 21 | 25 | 26                      TOP: 1.4
8. Unsaturated fatty acids chemically contain one or more double bonds between their carbon molecules.  
ANS: T                      REF: 21-22                      TOP: 1.4
9. Essential minerals are elements made by plants.  
ANS: F                      REF: 29-30                      TOP: 1.5
10. White muscle meat provides an exogenous source of cholesterol.  
ANS: T                      REF: 26                      TOP: 1.4
11. Cholesterol can be used by the body to synthesize sex hormones.  
ANS: T                      REF: 26 | 27                      TOP: 1.4
12. Fat-soluble vitamins are organic compounds.  
ANS: T                      REF: 28 | 29                      TOP: 1.5

13. Combining milk and meat is an example of protein complementation.

ANS: F                      REF: 18                      TOP: 1.3

14. The cholesterol sources for the body can be exogenous and endogenous.

ANS: T                      REF: 26                      TOP: 1.4

15. Minimal water intake should be at least 1 milliliter/Calorie expended.

ANS: T                      REF: 32                      TOP: 1.5

16. The over-consumption of an essential nutrient can lead to toxic signs and symptoms in the body.

ANS: T                      REF: 7|29                      TOP: 1.1 | 1.5

17. Water is an essential inorganic compound.

ANS: T                      REF: 32                      TOP: 1.5

18. Biological classification is a system used to group different cell types.

ANS: F                      REF: 4|5                      TOP: 1.1

19. Milk-based food contains carbohydrate.

ANS: T                      REF: 14                      TOP: 1.2

20. Skim milk is a low-quality protein source.

ANS: F                      REF: 19                      TOP: 1.3

### **Multiple Choice**

1. Saturated fatty acids such as stearic acid provide:

- A. 0 Calories per gram.
- B. 2 Calories per gram.
- C. 4 Calories per gram.
- D. 7 Calories per gram.
- E. 9 Calories per gram.

ANS: E                      REF: 21                      TOP: 1.4

2. Sterols provide:

- A. 0 Calories per gram.
- B. 2 Calories per gram.
- C. 4 Calories per gram.
- D. 7 Calories per gram.
- E. 9 Calories per gram.

ANS: A                      REF: 26                      TOP: 1.4

3. Soy protein provides:
- A. 0 Calories per gram.
  - B. 2 Calories per gram.
  - C. 4 Calories per gram.
  - D. 7 Calories per gram.
  - E. 9 Calories per gram.

ANS: C

REF: 4 | 17

TOP: 1.1 | 1.3

4. Vitamin D provides:
- A. 0 Calories per gram.
  - B. 2 Calories per gram.
  - C. 4 Calories per gram.
  - D. 7 Calories per gram.
  - E. 9 Calories per gram.

ANS: A

REF: 4 | 29

TOP: 1.1 | 1.5

5. If you ate a slice of white bread containing 15 grams of digestible carbohydrate, 3 grams of protein, and 1 gram of fat, approximately how many total Calories would this provide?
- A. 20 Calories
  - B. 40 Calories
  - C. 60 Calories
  - D. 80 Calories
  - E. 100 Calories

ANS: D

REF: 4

TOP: 1.1

6. Which answer best describes the function of lecithin?
- A. Tissue repair
  - B. Medium for metabolism
  - C. Preferred and fastest energy source
  - D. Component of cell membrane structure
  - E. Synthesis of sex hormones

ANS: D

REF: 25

TOP: 1.4

7. Which answer best describes the function of monosaccharides?
- A. Tissue repair
  - B. Medium for metabolism
  - C. Converted to adenosine triphosphate energy
  - D. Enzyme cofactor
  - E. Building blocks for vitamins

ANS: C

REF: 12

TOP: 1.2

8. Which answer best describes the function of fatty acids?
- A. Tissue repair
  - B. Medium for metabolism
  - C. Energy storage and source
  - D. Enzyme cofactor
  - E. Synthesis of sex hormones

ANS: C

REF: 21 | 22-23

TOP: 1.4



9. Which of the following answers includes characteristics of a sound diet?
- A. A plant-based diet
  - B. A diet rich in animal foods
  - C. A diet with Calorie control and moderation
  - D. A diet providing more than adequate amounts of nutrients
  - E. All of the above

ANS: C

REF: 7

TOP: 1.1

10. A trace mineral is found in amounts less than or equal to \_\_\_\_ in the adult reference body.
- A. 1 milligram
  - B. 5 Kilograms
  - C. 5 grams
  - D. 7 grams
  - E. None of the above

ANS: C

REF: 31

TOP: 1.5

11. Galactose is categorized as a \_\_\_\_ while lactose is categorized as a \_\_\_\_.
- A. monosaccharide; disaccharide
  - B. fatty acid; triglyceride
  - C. nonessential amino acid; complex protein
  - D. simple sugar; fiber
  - E. digestible carbohydrate; essential fatty acid

ANS: A

REF: 12

TOP: 1.2

12. What is the unique element in non-essential amino acids not found in fatty acids?
- A. Nitrogen
  - B. Oxygen
  - C. Carbon
  - D. Cobalt
  - E. Hydrogen

ANS: A

REF: 17 | 20

TOP: 1.3 | 1.4

13. Which of the following are essential fatty acids?
- A. Oleic acid and stearic acid
  - B. Linoleic acid and alpha-linolenic acid
  - C. Glutamic acid and acetic acid
  - D. Tryptophan and glutamine
  - E. Cysteine and methionine

ANS: B

REF: 22

TOP: 1.4

14. Monounsaturated fatty acids are found the most abundantly in:
- A. sunflower oil.
  - B. coconut oil.
  - C. lard.
  - D. almonds.
  - E. chicken fat.

ANS: D

REF: 21

TOP: 1.4

15. Which of the following is a trace mineral?

- A. Potassium
- B. Sulfur
- C. Magnesium
- D. Iron
- E. Phosphorus

ANS: D

REF: 21

TOP: 1.5

16. Which of the following answers contains only major minerals?

- A. Thiamin, pantothenic acid, and calcium
- B. Folate, biotin, and molybdenum
- C. Zinc, iron, and selenium
- D. Potassium, calcium, and sulfur
- E. Chloride, sodium, and zinc

ANS: D

REF: 31

TOP: 1.5

17. What does it mean for a vitamin to be termed water soluble?

- A. The vitamin is chemically composed of hydrogen and oxygen.
- B. The vitamin provides water for the body.
- C. The vitamin is concentrated in drinking water.
- D. The vitamin is synthesized in the body from water.
- E. The vitamin dissolves in water.

ANS: E

REF: 29

TOP: 1.5

18. Which of the following is an essential nutrient?

- A. Galactose
- B. Thiamin
- C. Cholesterol
- D. Silicone
- E. Oleic acid

ANS: B

REF: 29

TOP: 1.5

19. Which of the following is also known as blood sugar?

- A. Sorbitol
- B. Sucrose
- C. Lactose
- D. Maltose
- E. Glucose

ANS: E

REF: 12

TOP: 1.2

20. What is the physiological need for food?

- A. Hunger
- B. Appetite
- C. Satiety
- D. Homeostasis
- E. Dehydration

ANS: A

REF: 8

TOP: 1.1

21. Which food below provides a source of both protein and carbohydrate?

- A. Egg
- B. Chicken
- C. Olive oil
- D. Broccoli
- E. Orange

ANS: D

REF: 14 | 18

TOP: 1.2 | 1.3

22. The essential fatty acids are:

- A. solid at room temperature.
- B. omega-3 fatty acids.
- C. found in dairy products.
- D. found in plant oils.
- E. monounsaturated.

ANS: D

REF: 22

TOP: 1.4

23. Alcohol is:

- A. a central nervous system stimulant.
- B. a good source of essential nutrients.
- C. the most energy-dense dietary substance.
- D. an inorganic compound.
- E. a drug.

ANS: E

REF: 15

TOP: 1.2

24. Which of the following statements is false regarding adenosine triphosphate?

- A. It is made by energy transfer.
- B. It is the ultimate form of energy.
- C. It is potential energy for the human body.
- D. It allows the human body to do work.
- E. It can be generated by breaking down vitamins.

ANS: E

REF: 6

TOP: 1.1

25. Which statement most closely defines a Calorie?

- A. A unit used to measure nutrient density in food
- B. Found in organic and inorganic material
- C. The energy potential of food
- D. A macronutrient
- E. Another term for dietary fat

ANS: C

REF: 3

TOP: 1.1

26. Which of the following is false about dietary fiber?

- A. It is found in animal foods.
- B. It provides 0 Calories per gram.
- C. It is a complex carbohydrate.
- D. It contains beta-linked glucose units.
- E. There is a recommend intake level for it.

ANS: A

REF: 13 | 14

TOP: 1.2

27. Which statement most closely defines *diet*?
- A. A route to achieving health
  - B. A low carbohydrate intake program
  - C. Nutritional adequacy in food composition
  - D. The kind and amount of food eaten each day
  - E. A weight-loss or weight-gain program

ANS: D

REF: 3

TOP: 1.1

28. Starch contains glucose units linked together by:
- A. alpha bonds.
  - B. beta bonds.
  - C. chi bonds.
  - D. delta bonds.
  - E. gamma bonds.

ANS: A

REF: 13

TOP: 1.2

29. Which substance below is the most calorically dense?
- A. Starch
  - B. Fiber
  - C. Protein
  - D. Sterols
  - E. Triglycerides

ANS: E

REF: 21

TOP: 1.4

30. Which of the following is a function of minerals?
- A. Regulate fluid balance
  - B. Provide Calories
  - C. Support weight loss
  - D. Promote excretion
  - E. Maintain cell membrane bilayers

ANS: A

REF: 30

TOP: 1.5

**Exam D****True/False**

1. The term *health* applies to the physical health of a person only.  
ANS: F                      REF: 5                      TOP: 1.1
2. Dietary fat is the preferred fuel source for the human body.  
ANS: F                      REF: 12                      TOP: 1.2
3. Organic compounds contain several elements chemically bound together, including the element carbon.  
ANS: T                      REF: 12                      TOP: 1.2
4. Malnutrition includes overnutrition and undernutrition.  
ANS: T                      REF: 7                      TOP: 1.1
5. One twelve-ounce can of regular cola soda contains 40 grams of sugars. This would supply 120 Calories.  
ANS: F                      REF: 4 | 12                      TOP: 1.1 | 1.2
6. Incomplete proteins are found in animal food sources.  
ANS: F                      REF: 18-19                      TOP: 1.3
7. Triglycerides, phospholipids, and sterols are calorically dense.  
ANS: F                      REF: 21 | 25 | 26                      TOP: 1.4
8. Saturated fatty acids chemically contain one or more double bonds between their carbon molecules.  
ANS: F                      REF: 21                      TOP: 1.4
9. Essential minerals are elements naturally found in earth.  
ANS: T                      REF: 29-30                      TOP: 1.5
10. Vegetables provide an exogenous source of cholesterol.  
ANS: F                      REF: 26                      TOP: 1.4
11. Cholesterol can be used by the body to synthesize vitamin D.  
ANS: T                      REF: 26                      TOP: 1.4
12. Water-soluble vitamins are organic compounds.  
ANS: T                      REF: 28 | 29                      TOP: 1.5

13. Combining wheat-containing cereal with soy milk is an example of protein complementation.

ANS: T REF: 18 TOP: 1.3

14. Cholesterol in the diet is essential.

ANS: F REF: 26 TOP: 1.4

15. Drinking fluid promotes the excretion of toxic metabolic waste products from the body.

ANS: T REF: 32-33 TOP: 1.5

16. The absence of an essential nutrient in the body leads to deficiency signs and symptoms.

ANS: T REF: 3 TOP: 1.1

17. Cells have the capacity for metabolism.

ANS: T REF: 5 TOP: 1.1

18. Exercise promotes healthy bone structure.

ANS: T REF: 8 TOP: 1.1

19. Plant food sources contain carbohydrate.

ANS: T REF: 14 TOP: 1.2

20. Milk is a source of high-quality protein.

ANS: T REF: 19 TOP: 1.3

### **Multiple Choice**

1. Amylose provides:

- A. 0 Calories per gram.
- B. 2 Calories per gram.
- C. 4 Calories per gram.
- D. 7 Calories per gram.
- E. 9 Calories per gram.

ANS: C REF: 12 | 13 TOP: 1.2

2. Amino acids provide:

- A. 0 Calories per gram.
- B. 2 Calories per gram.
- C. 4 Calories per gram.
- D. 7 Calories per gram.
- E. 9 Calories per gram.

ANS: C REF: 17 TOP: 1.3

3. Salt provides:
- A. 0 Calories per gram.
  - B. 2 Calories per gram.
  - C. 4 Calories per gram.
  - D. 7 Calories per gram.
  - E. 9 Calories per gram.

ANS: A

REF: 30|31|33

TOP: 1.5

4. Cholesterol provides:
- A. 0 Calories per gram.
  - B. 2 Calories per gram.
  - C. 4 Calories per gram.
  - D. 7 Calories per gram.
  - E. 9 Calories per gram.

ANS: A

REF: 26

TOP: 1.4

5. Water provides:
- A. 0 Calories per gram.
  - B. 2 Calories per gram.
  - C. 4 Calories per gram.
  - D. 7 Calories per gram.
  - E. 9 Calories per gram.

ANS: A

REF: 4|32

TOP: 1.1 | 1.5

6. Which answer best describes the function of protein?
- A. Tissue repair
  - B. Medium for metabolism
  - C. Preferred and fastest energy source
  - D. Enzyme cofactor
  - E. Synthesis of sex hormones

ANS: A

REF: 17

TOP: 1.3

7. Which answer best describes the function of vitamins?
- A. Tissue repair
  - B. Medium for metabolism
  - C. Preferred and fastest energy source
  - D. Enzyme cofactor
  - E. Synthesis of sex hormones

ANS: D

REF: 29

TOP: 1.5

8. Which answer best describes the function of sterols?
- A. Tissue repair
  - B. Medium for metabolism
  - C. Preferred and fastest energy source
  - D. Enzyme cofactor
  - E. Synthesis of sex hormones

ANS: E

REF: 26-27

TOP: 1.4

9. Which of the following answers includes characteristics of a sound diet?
- A. Low carbohydrate, high protein
  - B. Calorie control, low fat
  - C. Balance and variety
  - D. More than adequate
  - E. All of the above

ANS: C

REF: 7

TOP: 1.1

10. A major mineral is found in amounts greater than \_\_\_\_ in the adult reference body.
- A. 1 gram
  - B. 500 milligrams
  - C. 5 grams
  - D. 7 grams
  - E. 2.5 grams

ANS: C

REF: 31

TOP: 1.5

11. Protein is categorized as \_\_\_\_ while amino acids are categorized as \_\_\_\_.
- A. high quality or low quality; essential or nonessential
  - B. essential or nonessential; high quality or low quality
  - C. soluble or insoluble; simple or complex
  - D. simple or complex; sterols or nonsterols
  - E. heavy or light, small or large

ANS: A

REF: 17

TOP: 1.3

12. What is the unique element in protein not found in starch?
- A. Nitrogen
  - B. Oxygen
  - C. Carbon
  - D. Cobalt
  - E. Hydrogen

ANS: A

REF: 11 | 13 | 17

TOP: 1.2 | 1.3

13. Which of the following answers includes only monosaccharides?
- A. Lactose and galactose
  - B. Fructose and glucose
  - C. Glucose and sucrose
  - D. Lactose and maltose
  - E. Cysteine and methionine

ANS: B

REF: 12

TOP: 1.2

14. Monounsaturated fatty acids are found abundantly in:
- A. sunflower oil.
  - B. coconut oil.
  - C. lard.
  - D. olive oil.
  - E. chicken fat.

ANS: D

REF: 21

TOP: 1.4



15. Which of the following is NOT a major mineral?

- A. Sodium
- B. Sulfur
- C. Chloride
- D. Iron
- E. Calcium

ANS: D

REF: 31

TOP: 1.5

16. Which of the following is a disaccharide?

- A. Galactose
- B. Glutamine
- C. Manganese
- D. Maltose
- E. Adenosine triphosphate

ANS: D

REF: 12

TOP: 1.2

17. Which of the following answers contains only trace minerals?

- A. Niacin, pantothenic acid, and calcium
- B. Folate, biotin, molybdenum, and Iron
- C. Zinc, iron, iodine, and selenium
- D. Potassium, calcium, sulfur, and zinc
- E. Chloride, sodium, magnesium, and manganese

ANS: C

REF: 31

TOP: 1.5

18. What does it mean for a vitamin to be termed fat soluble?

- A. The vitamin provides 9 Calories per gram.
- B. The vitamin provides insulation for the body.
- C. The vitamin dissolves in fat.
- D. The vitamin is synthesized in the body from fat.
- E. None of the above

ANS: C

REF: 29

TOP: 1.5

19. What is the psychological desire for food?

- A. Hunger
- B. Appetite
- C. Satiety
- D. Homeostasis
- E. Dehydration

ANS: B

REF: 8

TOP: 1.1

20. Which of the following is also known as milk sugar?

- A. Sorbitol
- B. Sucrose
- C. Lactose
- D. Maltose
- E. Glucose

ANS: C

REF: 12

TOP: 1.2

21. The essential fatty acids are:
- A. monounsaturated.
  - B. carriers of the trace mineral cobalt.
  - C. found in the highest levels in plant oils.
  - D. found in the highest levels in animal meat.
  - E. solid at room temperature.

ANS: C

REF: 22

TOP: 1.4

22. Which food below provides the best source of cholesterol and phospholipids?
- A. Egg
  - B. Steak
  - C. Crisco
  - D. Soybeans
  - E. Potato

ANS: A

REF: 26

TOP: 1.4

23. Alcohol is:
- A. a stimulant.
  - B. a depressant.
  - C. a non-caloric substance.
  - D. a micronutrient.
  - E. nutrient dense.

ANS: B

REF: 8 | 15

TOP: 1.1 | 1.2

24. Fiber contains glucose units linked together by:
- A. alpha bonds.
  - B. beta bonds.
  - C. chi bonds.
  - D. delta bonds.
  - E. gamma bonds.

ANS: B

REF: 13

TOP: 1.2

25. The number of essential fatty acids in adult human nutrition is:
- A. 11.
  - B. 9.
  - C. 7.
  - D. 2.
  - E. 0.

ANS: D

REF: 22

TOP: 1.4

26. Which of the following is a function of minerals?
- A. Provide energy
  - B. Regulate pH balance
  - C. Promote weight loss
  - D. Medium for neurological signals
  - E. Maintain cell membrane integrity

ANS: B

REF: 30

TOP: 1.5

27. Which of the following statements is false regarding adenosine triphosphate?

- A. It is formed from fat-soluble vitamins.
- B. It is produced from glucose, amino acids, and fatty acids.
- C. It is chemical compound used for energy.
- D. It enables the human body to do work.
- E. It is created by energy transfer.

ANS: A

REF: 6

TOP: 1.1

28. A Calorie is:

- A. a unit used to measure energy.
- B. measured in food using a bomb calorimeter.
- C. the amount of heat energy needed to raise 1 kilogram of water 1 degree Celsius.
- D. All the above
- E. None of the above

ANS: D

REF: 3

TOP: 1.1

29. Which of the following is true about dietary fiber?

- A. It is found in plant and animal foods.
- B. It provides 4 Calories per gram.
- C. It is a simple carbohydrate.
- D. It is used for tissue repair and maintenance.
- E. There is a recommend intake (DRI) level for it.

ANS: E

REF: 13 | 14

TOP: 1.2

30. Diet is defined as:

- A. a weight-loss program.
- B. a high-protein, low-carbohydrate food intake program.
- C. the kind and amount of food eaten each day.
- D. variety, moderation, and balance in food composition.
- E. a route to malnutrition.

ANS: C

REF: 3

TOP: 1.1

## Practice Exam

### **True/False**

1. There are numerous different cell types in the human body.  
ANS: T                      REF: 5                      TOP: 1.1
2. Vegetables provide a source of incomplete, low-quality protein.  
ANS: T                      REF: 18                      TOP: 1.3
3. Sterols are calorically dense.  
ANS: F                      REF: 26                      TOP: 1.4
4. Oleic acid is an essential fatty acid.  
ANS: F                      REF: 22                      TOP: 1.4
5. Starch provides 4 Calories per gram.  
ANS: T                      REF: 12                      TOP: 1.2
6. Calcium is an organic element.  
ANS: F                      REF: 30 | 31                      TOP: 1.5
7. Some minerals function in acid-base balance in the body.  
ANS: T                      REF: 30                      TOP: 1.5
8. Plant foods are an exogenous source of cholesterol.  
ANS: F                      REF: 26                      TOP: 1.4
9. Every amino acid contains nitrogen.  
ANS: T                      REF: 17                      TOP: 1.3
10. Eating a peanut butter sandwich qualifies as protein complementation.  
ANS: T                      REF: 18                      TOP: 1.3
11. Protein provided from plant foods is considered to have low biological value.  
ANS: T                      REF: 18                      TOP: 1.3
12. Cholesterol can be used by the body to produce vitamin D.  
ANS: T                      REF: 26                      TOP: 1.4

13. Minerals are organic compounds.

ANS: F REF: 30 TOP: 1.5

14. Sodium is a major mineral.

ANS: T REF: 31 TOP: 1.5

15. Adenosine triphosphate is produced in the mitochondria of cells.

ANS: T REF: 6 TOP: 1.1

16. Some fatty acids are essential.

ANS: T REF: 22 TOP: 1.4

17. Water provides the medium for metabolism.

ANS: T REF: 32 TOP: 1.5

18. Nutrient density refers to the amount of vitamins in relation to minerals.

ANS: F REF: 3 TOP: 1.1

19. Moderation means that the diet is not deficient in an essential nutrient.

ANS: F REF: 7 TOP: 1.1

20. Alcohol is chemically closely related to sterols.

ANS: F REF: 8 | 15 TOP: 1.1 | 1.2

### **Multiple Choice**

1. Maltose provides:

- A. 0 Calories per gram.
- B. 2 Calories per gram.
- C. 4 Calories per gram.
- D. 7 Calories per gram.
- E. 9 Calories per gram.

ANS: C REF: 12 TOP: 1.2

2. Fiber provides:

- A. 0 Calories per gram.
- B. 2 Calories per gram.
- C. 4 Calories per gram.
- D. 7 Calories per gram.
- E. 9 Calories per gram.

ANS: A REF: 13 TOP: 1.2

3. Fatty acids provide:
- A. 0 Calories per gram.
  - B. 2 Calories per gram.
  - C. 4 Calories per gram.
  - D. 7 Calories per gram.
  - E. 9 Calories per gram.

ANS: E

REF: 21

TOP: 1.4

4. Plant protein provides:
- A. 0 Calories per gram.
  - B. 2 Calories per gram.
  - C. 4 Calories per gram.
  - D. 7 Calories per gram.
  - E. 9 Calories per gram.

ANS: C

REF: 4 | 17

TOP: 1.1 | 1.3

5. Major minerals provide:
- A. 0 Calories per gram.
  - B. 2 Calories per gram.
  - C. 4 Calories per gram.
  - D. 7 Calories per gram.
  - E. 9 Calories per gram.

ANS: A

REF: 4 | 30

TOP: 1.1 | 1.5

6. Which of the following is a function of minerals?
- A. Provide 4 Calories per gram
  - B. Regulate fluid balance
  - C. Speed up metabolism
  - D. Are converted to stored fat when in excess
  - E. Make up cell membranes

ANS: B

REF: 30

TOP: 1.5

7. Which of the following statements is true about cholesterol?
- A. It is an essential nutrient.
  - B. It can be synthesized (made) inside the body.
  - C. It provides 9 Calories per gram.
  - D. It functions as an enzyme cofactor in metabolism.
  - E. All of the above are true.

ANS: B

REF: 26

TOP: 1.4

8. Which of the following answers includes only vitamins?
- A. Thiamin, iron, glucose
  - B. Folate, iodine, chromium
  - C. Pantothenic acid, biotin, vitamin C
  - D. Calcium, cholesterol, cobalt
  - E. Phosphorus, sulfur, fructose

ANS: C

REF: 29

TOP: 1.5

9. Which of the following dietary substances may function as an enzyme cofactor?
- A. Sugars
  - B. Fiber
  - C. Amino acids
  - D. Vitamins
  - E. Water

ANS: D

REF: 29

TOP: 1.5

10. The human body prefers to burn \_\_\_\_\_ for energy.
- A. Carbohydrates
  - B. Proteins
  - C. Phospholipids
  - D. Sterols
  - E. Water

ANS: A

REF: 12

TOP: 1.2

11. How are minerals categorized?
- A. Fat or water soluble
  - B. Major and trace
  - C. Organic and inorganic
  - D. Essential and nonessential
  - E. Blood or bone

ANS: B

REF: 30

TOP: 1.5

12. Which of the following foods is predominately a source of polyunsaturated fatty acids?
- A. Animal fat
  - B. Soybean oil
  - C. Butter
  - D. Olive oil
  - E. Coconut oil

ANS: B

REF: 24

TOP: 1.4

13. Phospholipids are used to make:
- A. Proteins
  - B. Fat
  - C. Cell membranes
  - D. Bone
  - E. ATP

ANS: C

REF: 25

TOP: 1.4

14. What does it mean for an essential mineral to be labeled as “trace”?
- A. The total quantity of the mineral in the adult reference male body is less than or equal to 1 gram.
  - B. The total quantity of the mineral in the adult reference male body is less than or equal to 2 grams.
  - C. The total quantity of the mineral in the adult reference male body is less than or equal to 3 grams.
  - D. The total quantity of the mineral in the adult reference male body is less than or equal to 4 grams.
  - E. The total quantity of the mineral in the adult reference male body is less than or equal to 5 grams.

ANS: E

REF: 31

TOP: 1.5

15. Characteristics of a sound diet include:
- A. low carbohydrate and high protein.
  - B. Calorie control and nutritional adequacy.
  - C. moderation, balance, and variety.
  - D. A and C
  - E. B and C

ANS: E

REF: 7

TOP: 1.1

16. Macronutrients include:
- A. water, protein, and minerals.
  - B. fat, carbohydrate, and vitamins.
  - C. protein, fat, and carbohydrate.
  - D. carbohydrate, minerals, and protein.

ANS: C

REF: 5

TOP: 1.1

17. Four calories per gram are provided by:
- A. fat and cholesterol.
  - B. carbohydrates and alcohol.
  - C. protein and fat-soluble vitamins.
  - D. carbohydrates and protein.

ANS: D

REF: 4

TOP: 1.1

18. *Organic* means that the substance is:
- A. carbon containing.
  - B. wholesome.
  - C. steroid free.
  - D. pesticide free.

ANS: A

REF: 12

TOP: 1.2

19. Organic compounds include:
- A. water and fat.
  - B. phospholipids and protein.
  - C. cholesterol and minerals.
  - D. carbohydrates and calcium.

ANS: B

REF: 17 | 20

TOP: 1.3 | 1.4



20. The categories of carbohydrate are:

- A. high quality and low quality.
- B. essential and nonessential.
- C. soluble and insoluble.
- D. simple and complex.

ANS: D

REF: 12

TOP: 1.2

21. Monosaccharides include:

- A. lactose and maltose.
- B. fructose and galactose.
- C. glucose and sucrose.
- D. glucose and maltose.

ANS: B

REF: 12

TOP: 1.2

22. Which fatty acids have no double bonds?

- A. Saturated fatty acids
- B. Monounsaturated fatty acids
- C. Polyunsaturated fatty acids
- D. *Trans* fatty acids

ANS: A

REF: 21

TOP: 1.4

23. A good food source of monounsaturated fatty acids is:

- A. safflower oil.
- B. palm oil.
- C. peanut oil.
- D. canola oil.

ANS: D

REF: 21

TOP: 1.4

24. Which of the following scenarios could lead to “malnutrition”?

- A. A person is taking single-nutrient supplements every day at a level well above the tolerable upper intake level (UL).
- B. A person is chronically under-consuming total Calories in their diet.
- C. A person is chronically over-consuming total Calories in their diet.
- D. B and C
- E. A, B, and C.

ANS: E

REF: 7

TOP: 1.1

25. Which of the following foods would have the most nutrient density?

- A. Ice cream
- B. French fries
- C. Yogurt
- D. Water

ANS: C

REF: 3|4

TOP: 1.1

26. Which of the following factors could affect food choice?

- A. Knowledge
- B. Availability
- C. Social factors
- D. Economics
- E. All of the above

ANS: E

REF: 9-10

TOP: 1.1

27. A simple carbohydrate source would be:

- A. bread.
- B. rice.
- C. pasta.
- D. fruit.
- E. legumes.

ANS: D

REF: 12 | 14

TOP: 1.2

28. Which nutrient would add the best satiety value to a meal?

- A. Fat
- B. Protein
- C. Carbohydrate
- D. Vitamins
- E. Minerals

ANS: A

REF: 8 | 22

TOP: 1.1 | 1.4

29. Choose one of the following answers that includes only the trace minerals.

- A. Calcium, iron, and copper
- B. Iron, zinc, and iodine
- C. Magnesium, cobalt, and selenium
- D. Phosphorus, fluoride, and chromium
- E. Fluoride, cobalt, and sulfur

ANS: B

REF: 31

TOP: 1.5

30. How much water intake is needed to stay in water balance?

- A. 0.5 milliliters per Calorie expended
- B. 1.0 milliliters per Calorie expended
- C. 1.5 milliliters per Calorie expended
- D. 2.0 milliliters per Calorie expended

ANS: B

REF: 32

TOP: 1.5

## Ready-to-Print Module 1 Exam A

### **True/False**

1. Health is complete physical, mental, and social well-being, not just the absence of infirmity.
2. Malnutrition refers to the impairment of health resulting only from nutrient deficiency.
3. Alcohol is a central nervous system depressant.
4. Combining rice with vegetables is an example of protein complementation.
5. Minerals are organic compounds.
6. Linoleic acid is an essential fatty acid.
7. Polyunsaturated fatty acids contain more than one double bond between the carbon molecules.
8. Cholesterol is an essential nutrient.
9. If a mineral is found in the adult reference male body at a level of 2.4 grams, then it would be considered a major mineral.
10. Plant proteins are incomplete, low-quality proteins that are limited in one or more essential amino acids.
11. Dietary fat intake should be as low as possible for optimal health.
12. Fats high in polyunsaturated fatty acids are solid at room temperature.
13. Cellulose is non-caloric because it is a fiber.
14. Fruit provides a carbohydrate food source.
15. The essential fatty acids are polyunsaturated.
16. Cheese provides a source of incomplete, low-quality protein.
17. Soybeans provide a source of cholesterol and phospholipids.
18. Adenosine triphosphate is produced inside the cell nucleus.
19. Dietary fibers are complex carbohydrates.
20. Hunger is the physiological need for food.

### **Matching**

*Match the energy-yielding food component with its energy yield. Choose the best answer. You may use some answers more than once or not at all.*

- A. 0 Calories per gram
- B. 2 Calories per gram
- C. 4 Calories per gram

- D. 7 Calories per gram
- E. 9 Calories per gram

- 1. Sucrose provides:
- 2. Alcohol provides:
- 3. Protein provides:
- 4. Triglycerides provide:
- 5. Vitamins provide:

*Match the short phrase or term with the associated short phrase or term. Choose the best answer. You may use some answers more than once or not at all.*

- A. Tissue repair
  - B. Medium for metabolism
  - C. Preferred and fastest energy source
  - D. Enzyme cofactor
  - E. Cell membranes
- 
- 6. Function of carbohydrates
  - 7. Function of phospholipids
  - 8. Function of water

### **Multiple Choice**

- 1. What is food?
  - A. Anything that enters the body through the mouth
  - B. Substances nonessential for the body
  - C. Anything that nourishes the body
  - D. Substances that provide fiber
  - E. The medium for metabolism
- 2. Which of the following is a macronutrient?
  - A. Minerals
  - B. Vitamins
  - C. Protein
  - D. A and B
  - E. A, B, and C
- 3. The nutritional science definition of *organic* is:
  - A. chemically free.
  - B. hydrogenated.
  - C. water bound.
  - D. living.
  - E. carbon containing.
- 4. A person who consumes an inadequate amount of protein may:
  - A. have less potential for tissue repair.
  - B. experience greater kinetic energy.
  - C. become deficient in cholesterol.
  - D. age more gracefully.
  - E. lack the preferred fuel source.

5. Which of the following is an essential and inorganic nutrient?
  - A. Linoleic acid
  - B. Folic acid
  - C. Iodine
  - D. Cellulose
  - E. Lecithin
6. Which of the following is an essential and organic nutrient?
  - A. Cholesterol
  - B. Oleic acid
  - C. Manganese
  - D. Thiamin
  - E. Water
7. Which fatty acids have no carbon-carbon double bonds?
  - A. Saturated fatty acids
  - B. Monounsaturated fatty acids
  - C. Polyunsaturated fatty acids
  - D. *Trans* fatty acids
  - E. *Cis* fatty acids
8. Longevity is affected by:
  - A. diet.
  - B. exercise.
  - C. habits such as smoking and alcohol consumption.
  - D. A and B only
  - E. A, B and C
9. Which of the following is a characteristic of a sound diet?
  - A. Adequacy
  - B. Balance
  - C. Moderation
  - D. Variety
  - E. All of the above
10. Satiety is best described as the:
  - A. feeling of fullness.
  - B. need to eat.
  - C. desire for food.
  - D. process of drinking water.
  - E. state of complete wellbeing.
11. Which statement(s) is/are true about water?
  - A. It is an organic compound.
  - B. Deficiency can occur rapidly.
  - C. An adequate intake for all adults is 0.5 milliliters per Calorie expended.
  - D. A and B are true.
  - E. A, B, and C are true.
12. Which statement(s) is/are true regarding energy-producing nutrients?
  - A. Energy-producing nutrients are organic compounds.
  - B. Energy-producing nutrients are inorganic compounds.
  - C. Energy-producing nutrients are elements.
  - D. Protein, carbohydrate, and fat are energy-producing nutrients.
  - E. Both A and D are true statements.

13. Which element can be found in amino acids but not fatty acids?
- A. Hydrogen
  - B. Zinc
  - C. Nitrogen
  - D. Selenium
  - E. Oxygen
14. What are the three most common disaccharides consumed in the diet?
- A. Fructose, sucrose, ribose
  - B. Fructose, glucose, galactose
  - C. Sucrose, maltose, lactose
  - D. Maltose, glucose, fructose
  - E. Amylose, cellulose, sucrose
15. Food sources of carbohydrate include:
- A. milk.
  - B. cereal.
  - C. fruit.
  - D. All of the above
  - E. None of the above
16. How are lipids/fats categorized?
- A. Simple and complex
  - B. Complete and incomplete
  - C. Saturated and unsaturated
  - D. Major and trace
  - E. Triglycerides, phospholipids, and sterols
17. How are carbohydrates categorized?
- A. Simple and complex
  - B. Complete and incomplete
  - C. Organic and inorganic
  - D. Major and trace
  - E. Digestible and indigestible
18. The two categories of amino acids are:
- A. essential amino acids and non-essential amino acids.
  - B. complete amino acids and incomplete amino acids.
  - C. branched-chain amino acids and sulfur-containing amino acids.
  - D. water-soluble amino acids and fat-soluble amino acids.
  - E. macro-amino acids and micro-amino acids.
19. Which of the following answers includes only water-soluble vitamins?
- A. Thiamin, niacin, riboflavin, vitamin C
  - B. Niacin, biotin, zinc, choline
  - C. Thiamin, chromium, riboflavin, vitamin B<sub>6</sub>
  - D. Vitamin B<sub>12</sub>, vitamin E, vitamin C, biotin
  - E. Folate, iron, vitamin C, zinc

20. Which of the following answers includes only major minerals?
- A. Iron, zinc, and magnesium
  - B. Sodium, potassium, and chloride
  - C. Calcium, phosphorus, and selenium
  - D. Magnesium, copper, and zinc
  - E. Fluoride, iodine, and chromium
21. Which type of fatty acid is found at high levels in olive oil?
- A. Saturated fatty acids
  - B. Monounsaturated fatty acids
  - C. Polyunsaturated fatty acids
  - D. *Trans* fatty acids
  - E. Monoglycerides
22. Of the energy-producing nutrients, \_\_\_\_\_ could be consumed as the lowest percentage of total Calories within the recommended dietary intake level.
- A. Carbohydrate
  - B. Minerals
  - C. Fat
  - D. Protein
  - E. Vitamins

## Ready-to-Print Module 1 Exam B

### **True/False**

1. Appetite is defined as the psychological desire for food.
2. Malnutrition can include excessive intake of a nutrient.
3. Cellulose is a phospholipid.
4. Combining fruit and vegetables is an example of protein complementation.
5. Alpha-linolenic acid is an essential fatty acid.
6. A lack of daily physical activity reduces longevity.
7. Sources of fat with high amounts of saturated fatty acids are solid at room temperature.
8. Adequate amounts of cholesterol are synthesized by the adult human liver.
9. If a mineral is found in the adult reference body at a level of 6.4 grams, then it would be considered a major mineral.
10. Animal proteins are complete proteins.
11. Cholesterol can be used to make bile within the human body.
12. Organic compounds contain the element carbon.
13. Appetite is the psychological desire for food.
14. Vitamins can function in acid-base balance.
15. The human body can make essential nutrients.
16. Water is an inorganic compound.
17. Humans are comprised of cells of the same type throughout the body.
18. When a person is thirsty s/he is not yet dehydrated.
19. Food is anything edible that nourishes the body.
20. For optimal health, a majority of Calories in the diet should come from protein.

### **Matching**

*Match the energy-yielding food component with its energy yield. Choose the best answer. You may use some answers more than once or not at all.*

- A. 0 Calories per gram
- B. 2 Calories per gram
- C. 4 Calories per gram
- D. 7 Calories per gram
- E. 9 Calories per gram



1. Fructose provides:
2. Starch provides:
3. Cellulose provides:
4. Triglycerides provide:
5. Calcium provides:
6. Animal protein provides:

*Match the short phrase or term with the associated short phrase or term. Choose the best answer. You may use some answers more than once or not at all.*

- A. Contain nitrogen
- B. Contain alpha-linked glucose
- C. Are inorganic and needed in tiny amounts
- D. Are organic and needed in tiny amounts
- E. Form membrane bilayers

7. Digestible polysaccharides:
8. Proteins:
9. Phospholipids:
10. Minerals:
11. Vitamins:

### **Multiple Choice**

1. Six ounces of red table wine contains 20 grams of alcohol. How many Calories from alcohol is this?
  - A. 40
  - B. 80
  - C. 110
  - D. 140
  - E. 180
2. Which answer best defines dietary moderation?
  - A. No unwanted substance in excess
  - B. A mixture of food groups
  - C. Foods that maintain a healthy body weight
  - D. Different foods used for the same purpose
  - E. Impairment of health from toxicity
3. Which of the following factors affect food choices?
  - A. Food availability
  - B. Taste preference
  - C. Cultural traditions
  - D. Social/economic status
  - E. All of these
4. Which statement(s) is/are true about water?
  - A. It is the medium for metabolism.
  - B. It is found in beverages but not foods.
  - C. It is converted to adenosine triphosphate.
  - D. A and B are true.
  - E. A, B, and C are true.

5. Which of the following statements is false regarding energy-producing nutrients?
  - A. Energy-producing nutrients may include organic compounds.
  - B. Energy-producing nutrients may be found in all food groups.
  - C. Vitamins are energy-producing nutrients.
  - D. Protein can be an energy-producing nutrient.
  - E. Fat provides the highest amount of energy per gram.
6. Which statement is false regarding polyunsaturated fatty acids?
  - A. They contain more than one double bond.
  - B. The essential fatty acids are polyunsaturated.
  - C. They are liquid at room temperature.
  - D. They are concentrated in animal food sources.
  - E. They provide 9 Calories per gram.
7. Which of the following answers includes polysaccharides?
  - A. Fructose, sucrose
  - B. Fructose, galactose
  - C. Sucrose, lactose
  - D. Maltose, glucose
  - E. Starch, fiber
8. An excellent food source of complete protein is:
  - A. seafood.
  - B. cooking oils.
  - C. fruits.
  - D. vegetables.
  - E. grains.
9. How are carbohydrates categorized?
  - A. Simple and complex
  - B. Complete and incomplete
  - C. Fat soluble and water soluble
  - D. Major and trace
  - E. Caloric and noncaloric
10. How are vitamins categorized?
  - A. Simple and complex
  - B. Complete and incomplete
  - C. Fat soluble and water soluble
  - D. Major and trace
  - E. Triglycerides, phospholipids, and sterols
11. The two categories of amino acids are:
  - A. essential amino acids and non-essential amino acids.
  - B. animal amino acids and plant amino acids.
  - C. acid-containing amino acids and base-containing amino acids.
  - D. water-soluble amino acids and fat-soluble amino acids.
  - E. macro-amino acids and micro-amino acids.
12. Which of the following answers includes three vitamins and one mineral?
  - A. Thiamin, niacin, riboflavin, vitamin C
  - B. Niacin, biotin, riboflavin, choline
  - C. Thiamin, pantothenic acid, riboflavin, vitamin B<sub>6</sub>
  - D. Vitamin B<sub>12</sub>, vitamin E, vitamin C, biotin
  - E. Folate, molybdenum, vitamin C, thiamin

13. Which of the following answers includes only trace minerals?
  - A. Iron, zinc, and magnesium
  - B. Sodium, potassium, and chloride
  - C. Calcium, phosphorus, and selenium
  - D. Magnesium, copper, and zinc
  - E. Fluoride, iodine, and chromium
14. The oil from peanuts is composed of predominately \_\_\_\_ fatty acids:
  - A. saturated and conjugated
  - B. polyunsaturated and monounsaturated
  - C. saturated and monounsaturated
  - D. saturated and polyunsaturated
  - E. monounsaturated and *trans*
15. Which of the following answers includes only vitamins?
  - A. Vitamin C, pantothenic acid, and chromium
  - B. Biotin, iron, and folate
  - C. Zinc, vitamin K, and linoleic acid
  - D. Thiamin, riboflavin, and niacin
  - E. Cholecalciferol, calcium, and copper
16. Which of the following is not a function of minerals in the human body?
  - A. Bone structure
  - B. Coenzyme
  - C. pH balance
  - D. Emulsifier
  - E. Fluid regulation
17. Which statement below is true about saturated fatty acids?
  - A. They contain double bonds.
  - B. They are healthy when eaten in moderation.
  - C. They are essential.
  - D. They are disease promoting when eaten in excess.
  - E. They are converted to *trans* fatty acids.
18. A Calorie is a measure of \_\_\_\_ in food.
  - A. fiber
  - B. energy
  - C. nutrient density
  - D. water content
  - E. fat
19. Which food provides an animal source of carbohydrate?
  - A. Chicken
  - B. Fish
  - C. Milk
  - D. Wheat
  - E. Eggs

## Ready-to-Print Module 1 Exam C

### **True/False**

1. The term *health* means a person has no contagious diseases.
2. Dietary protein is the preferred fuel source for the human body.
3. To be an organic compound, the compound must contain the element nitrogen.
4. Satiety is more psychological than physiological.
5. Nonessential amino acids provide 4 Calories per gram.
6. Incomplete proteins are found in grain-based food sources.
7. Triglycerides, phospholipids, and sterols contain 9 Calories per gram.
8. Unsaturated fatty acids chemically contain one or more double bonds between their carbon molecules.
9. Essential minerals are elements made by plants.
10. White muscle meat provides an exogenous source of cholesterol.
11. Cholesterol can be used by the body to synthesize sex hormones.
12. Fat-soluble vitamins are organic compounds.
13. Combining milk and meat is an example of protein complementation.
14. The cholesterol sources for the body can be exogenous and endogenous.
15. Minimal water intake should be at least 1 milliliter/Calorie expended.
16. The over-consumption of an essential nutrient can lead to toxic signs and symptoms in the body.
17. Water is an essential inorganic compound.
18. Biological classification is a system used to group different cell types.
19. Milk-based food contains carbohydrate.
20. Skim milk is a low-quality protein source.

### **Multiple Choice**

1. Saturated fatty acids such as stearic acid provide:
  - A. 0 Calories per gram.
  - B. 2 Calories per gram.
  - C. 4 Calories per gram.
  - D. 7 Calories per gram.
  - E. 9 Calories per gram.

2. Sterols provide:
  - A. 0 Calories per gram.
  - B. 2 Calories per gram.
  - C. 4 Calories per gram.
  - D. 7 Calories per gram.
  - E. 9 Calories per gram.
3. Soy protein provides:
  - A. 0 Calories per gram.
  - B. 2 Calories per gram.
  - C. 4 Calories per gram.
  - D. 7 Calories per gram.
  - E. 9 Calories per gram.
4. Vitamin D provides:
  - A. 0 Calories per gram.
  - B. 2 Calories per gram.
  - C. 4 Calories per gram.
  - D. 7 Calories per gram.
  - E. 9 Calories per gram.
5. If you ate a slice of white bread containing 15 grams of digestible carbohydrate, 3 grams of protein, and 1 gram of fat, approximately how many total Calories would this provide?
  - A. 20 Calories
  - B. 40 Calories
  - C. 60 Calories
  - D. 80 Calories
  - E. 100 Calories
6. Which answer best describes the function of lecithin?
  - A. Tissue repair
  - B. Medium for metabolism
  - C. Preferred and fastest energy source
  - D. Component of cell membrane structure
  - E. Synthesis of sex hormones
7. Which answer best describes the function of monosaccharides?
  - A. Tissue repair
  - B. Medium for metabolism
  - C. Converted to adenosine triphosphate energy
  - D. Enzyme cofactor
  - E. Building blocks for vitamins
8. Which answer best describes the function of fatty acids?
  - A. Tissue repair
  - B. Medium for metabolism
  - C. Energy storage and source
  - D. Enzyme cofactor
  - E. Synthesis of sex hormones

9. Which of the following answers includes characteristics of a sound diet?
  - A. A plant-based diet
  - B. A diet rich in animal foods
  - C. A diet with Calorie control and moderation
  - D. A diet providing more than adequate amounts of nutrients
  - E. All of the above
10. A trace mineral is found in amounts less than or equal to \_\_\_\_ in the adult reference body.
  - A. 1 milligram
  - B. 5 Kilograms
  - C. 5 grams
  - D. 7 grams
  - E. None of the above
11. Galactose is categorized as a \_\_\_\_ while lactose is categorized as a \_\_\_\_.
  - A. monosaccharide; disaccharide
  - B. fatty acid; triglyceride
  - C. nonessential amino acid; complex protein
  - D. simple sugar; fiber
  - E. digestible carbohydrate; essential fatty acid
12. What is the unique element in non-essential amino acids not found in fatty acids?
  - A. Nitrogen
  - B. Oxygen
  - C. Carbon
  - D. Cobalt
  - E. Hydrogen
13. Which of the following are essential fatty acids?
  - A. Oleic acid and stearic acid
  - B. Linoleic acid and alpha-linolenic acid
  - C. Glutamic acid and acetic acid
  - D. Tryptophan and glutamine
  - E. Cysteine and methionine
14. Monounsaturated fatty acids are found the most abundantly in:
  - A. sunflower oil.
  - B. coconut oil.
  - C. lard.
  - D. almonds.
  - E. chicken fat.
15. Which of the following is a trace mineral?
  - A. Potassium
  - B. Sulfur
  - C. Magnesium
  - D. Iron
  - E. Phosphorus
16. Which of the following answers contains only major minerals?
  - A. Thiamin, pantothenic acid, and calcium
  - B. Folate, biotin, and molybdenum
  - C. Zinc, iron, and selenium
  - D. Potassium, calcium, and sulfur
  - E. Chloride, sodium, and zinc

17. What does it mean for a vitamin to be termed water soluble?
- A. The vitamin is chemically composed of hydrogen and oxygen.
  - B. The vitamin provides water for the body.
  - C. The vitamin is concentrated in drinking water.
  - D. The vitamin is synthesized in the body from water.
  - E. The vitamin dissolves in water.
18. Which of the following is an essential nutrient?
- A. Galactose
  - B. Thiamin
  - C. Cholesterol
  - D. Silicone
  - E. Oleic acid
19. Which of the following is also known as blood sugar?
- A. Sorbitol
  - B. Sucrose
  - C. Lactose
  - D. Maltose
  - E. Glucose
20. What is the physiological need for food?
- A. Hunger
  - B. Appetite
  - C. Satiety
  - D. Homeostasis
  - E. Dehydration
21. Which food below provides a source of both protein and carbohydrate?
- A. Egg
  - B. Chicken
  - C. Olive oil
  - D. Broccoli
  - E. Orange
22. The essential fatty acids are:
- A. solid at room temperature.
  - B. omega-3 fatty acids.
  - C. found in dairy products.
  - D. found in plant oils.
  - E. monounsaturated.
23. Alcohol is:
- A. a central nervous system stimulant.
  - B. a good source of essential nutrients.
  - C. the most energy-dense dietary substance.
  - D. an inorganic compound.
  - E. a drug.

24. Which of the following statements is false regarding adenosine triphosphate?
- A. It is made by energy transfer.
  - B. It is the ultimate form of energy.
  - C. It is potential energy for the human body.
  - D. It allows the human body to do work.
  - E. It can be generated by breaking down vitamins.
25. Which statement most closely defines a Calorie?
- A. A unit used to measure nutrient density in food
  - B. Found in organic and inorganic material
  - C. The energy potential of food
  - D. A macronutrient
  - E. Another term for dietary fat
26. Which of the following is false about dietary fiber?
- A. It is found in animal foods.
  - B. It provides 0 Calories per gram.
  - C. It is a complex carbohydrate.
  - D. It contains beta-linked glucose units.
  - E. There is a recommend intake level for it.
27. Which statement most closely defines *diet*?
- A. A route to achieving health
  - B. A low carbohydrate intake program
  - C. Nutritional adequacy in food composition
  - D. The kind and amount of food eaten each day
  - E. A weight-loss or weight-gain program
28. Starch contains glucose units linked together by:
- A. alpha bonds.
  - B. beta bonds.
  - C. chi bonds.
  - D. delta bonds.
  - E. gamma bonds.
29. Which substance below is the most calorically dense?
- A. Starch
  - B. Fiber
  - C. Protein
  - D. Sterols
  - E. Triglycerides
30. Which of the following is a function of minerals?
- A. Regulate fluid balance
  - B. Provide Calories
  - C. Support weight loss
  - D. Promote excretion
  - E. Maintain cell membrane bilayers



## Ready-to-Print Module 1 Exam D

### **True/False**

1. The term *health* applies to the physical health of a person only.
2. Dietary fat is the preferred fuel source for the human body.
3. Organic compounds contain several elements chemically bound together, including the element carbon.
4. Malnutrition includes overnutrition and undernutrition.
5. One twelve-ounce can of regular cola soda contains 40 grams of sugars. This would supply 120 Calories.
6. Incomplete proteins are found in animal food sources.
7. Triglycerides, phospholipids, and sterols are calorically dense.
8. Saturated fatty acids chemically contain one or more double bonds between their carbon molecules.
9. Essential minerals are elements naturally found in earth.
10. Vegetables provide an exogenous source of cholesterol.
11. Cholesterol can be used by the body to synthesize vitamin D.
12. Water-soluble vitamins are organic compounds.
13. Combining wheat-containing cereal with soy milk is an example of protein complementation.
14. Cholesterol in the diet is essential.
15. Drinking fluid promotes the excretion of toxic metabolic waste products from the body.
16. The absence of an essential nutrient in the body leads to deficiency signs and symptoms.
17. Cells have the capacity for metabolism.
18. Exercise promotes healthy bone structure.
19. Plant food sources contain carbohydrate.
20. Milk is a source of high-quality protein.

### **Multiple Choice**

1. Amylose provides:
  - A. 0 Calories per gram.
  - B. 2 Calories per gram.
  - C. 4 Calories per gram.
  - D. 7 Calories per gram.
  - E. 9 Calories per gram.
2. Amino acids provide:
  - A. 0 Calories per gram.
  - B. 2 Calories per gram.
  - C. 4 Calories per gram.
  - D. 7 Calories per gram.
  - E. 9 Calories per gram.
3. Salt provides:
  - A. 0 Calories per gram.
  - B. 2 Calories per gram.
  - C. 4 Calories per gram.
  - D. 7 Calories per gram.
  - E. 9 Calories per gram.
4. Cholesterol provides:
  - A. 0 Calories per gram.
  - B. 2 Calories per gram.
  - C. 4 Calories per gram.
  - D. 7 Calories per gram.
  - E. 9 Calories per gram.
5. Water provides:
  - A. 0 Calories per gram.
  - B. 2 Calories per gram.
  - C. 4 Calories per gram.
  - D. 7 Calories per gram.
  - E. 9 Calories per gram.
6. Which answer best describes the function of protein?
  - A. Tissue repair
  - B. Medium for metabolism
  - C. Preferred and fastest energy source
  - D. Enzyme cofactor
  - E. Synthesis of sex hormones
7. Which answer best describes the function of vitamins?
  - A. Tissue repair
  - B. Medium for metabolism
  - C. Preferred and fastest energy source
  - D. Enzyme cofactor
  - E. Synthesis of sex hormones

8. Which answer best describes the function of sterols?
  - A. Tissue repair
  - B. Medium for metabolism
  - C. Preferred and fastest energy source
  - D. Enzyme cofactor
  - E. Synthesis of sex hormones
9. Which of the following answers includes characteristics of a sound diet?
  - A. Low carbohydrate, high protein
  - B. Calorie control, low fat
  - C. Balance and variety
  - D. More than adequate
  - E. All of the above
10. A major mineral is found in amounts greater than \_\_\_\_ in the adult reference body.
  - A. 1 gram
  - B. 500 milligrams
  - C. 5 grams
  - D. 7 grams
  - E. 2.5 grams
11. Protein is categorized as \_\_\_\_ while amino acids are categorized as \_\_\_\_.
  - A. high quality or low quality; essential or nonessential
  - B. essential or nonessential; high quality or low quality
  - C. soluble or insoluble; simple or complex
  - D. simple or complex; sterols or nonsterols
  - E. heavy or light, small or large
12. What is the unique element in protein not found in starch?
  - A. Nitrogen
  - B. Oxygen
  - C. Carbon
  - D. Cobalt
  - E. Hydrogen
13. Which of the following answers includes only monosaccharides?
  - A. Lactose and galactose
  - B. Fructose and glucose
  - C. Glucose and sucrose
  - D. Lactose and maltose
  - E. Cysteine and methionine
14. Monounsaturated fatty acids are found abundantly in:
  - A. sunflower oil.
  - B. coconut oil.
  - C. lard.
  - D. olive oil.
  - E. chicken fat.
15. Which of the following is NOT a major mineral?
  - A. Sodium
  - B. Sulfur
  - C. Chloride
  - D. Iron
  - E. Calcium

16. Which of the following is a disaccharide?
- A. Galactose
  - B. Glutamine
  - C. Manganese
  - D. Maltose
  - E. Adenosine triphosphate
17. Which of the following answers contains only trace minerals?
- A. Niacin, pantothenic acid, and calcium
  - B. Folate, biotin, molybdenum, and Iron
  - C. Zinc, iron, iodine, and selenium
  - D. Potassium, calcium, sulfur, and zinc
  - E. Chloride, sodium, magnesium, and manganese
18. What does it mean for a vitamin to be termed fat soluble?
- A. The vitamin provides 9 Calories per gram.
  - B. The vitamin provides insulation for the body.
  - C. The vitamin dissolves in fat.
  - D. The vitamin is synthesized in the body from fat.
  - E. None of the above
19. What is the psychological desire for food?
- A. Hunger
  - B. Appetite
  - C. Satiety
  - D. Homeostasis
  - E. Dehydration
20. Which of the following is also known as milk sugar?
- A. Sorbitol
  - B. Sucrose
  - C. Lactose
  - D. Maltose
  - E. Glucose
21. The essential fatty acids are:
- A. monounsaturated.
  - B. carriers of the trace mineral cobalt.
  - C. found in the highest levels in plant oils.
  - D. found in the highest levels in animal meat.
  - E. solid at room temperature.
22. Which food below provides the best source of cholesterol and phospholipids?
- A. Egg
  - B. Steak
  - C. Crisco
  - D. Soybeans
  - E. Potato

23. Alcohol is:
  - A. a stimulant.
  - B. a depressant.
  - C. a non-caloric substance.
  - D. a micronutrient.
  - E. nutrient dense.
24. Fiber contains glucose units linked together by:
  - A. alpha bonds.
  - B. beta bonds.
  - C. chi bonds.
  - D. delta bonds.
  - E. gamma bonds.
25. The number of essential fatty acids in adult human nutrition is:
  - A. 11.
  - B. 9.
  - C. 7.
  - D. 2.
  - E. 0.
26. Which of the following is a function of minerals?
  - A. Provide energy
  - B. Regulate pH balance
  - C. Promote weight loss
  - D. Medium for neurological signals
  - E. Maintain cell membrane integrity
27. Which of the following statements is false regarding adenosine triphosphate?
  - A. It is formed from fat-soluble vitamins.
  - B. It is produced from glucose, amino acids, and fatty acids.
  - C. It is chemical compound used for energy.
  - D. It enables the human body to do work.
  - E. It is created by energy transfer.
28. A Calorie is:
  - A. a unit used to measure energy.
  - B. measured in food using a bomb calorimeter.
  - C. the amount of heat energy needed to raise 1 kilogram of water 1 degree Celsius.
  - D. All the above
  - E. None of the above
29. Which of the following is true about dietary fiber?
  - A. It is found in plant and animal foods.
  - B. It provides 4 Calories per gram.
  - C. It is a simple carbohydrate.
  - D. It is used for tissue repair and maintenance.
  - E. There is a recommend intake (DRI) level for it.
30. Diet is defined as:
  - A. a weight-loss program.
  - B. a high-protein, low-carbohydrate food intake program.
  - C. the kind and amount of food eaten each day.
  - D. variety, moderation, and balance in food composition.
  - E. a route to malnutrition.

## **Ready-to-Print Module 1 Practice Exam**

### **True/False**

1. There are numerous different cell types in the human body.
2. Vegetables provide a source of incomplete, low-quality protein.
3. Sterols are calorically dense.
4. Oleic acid is an essential fatty acid.
5. Starch provides 4 Calories per gram.
6. Calcium is an organic element.
7. Some minerals function in acid-base balance in the body.
8. Plant foods are an exogenous source of cholesterol.
9. Every amino acid contains nitrogen.
10. Eating a peanut butter sandwich qualifies as protein complementation.
11. Protein provided from plant foods is considered to have low biological value.
12. Cholesterol can be used by the body to produce vitamin D.
13. Minerals are organic compounds.
14. Sodium is a major mineral.
15. Adenosine triphosphate is produced in the mitochondria of cells.
16. Some fatty acids are essential.
17. Water provides the medium for metabolism.
18. Nutrient density refers to the amount of vitamins in relation to minerals.
19. Moderation means that the diet is not deficient in an essential nutrient.
20. Alcohol is chemically closely related to sterols.

### **Multiple Choice**

1. Maltose provides:
  - A. 0 Calories per gram.
  - B. 2 Calories per gram.
  - C. 4 Calories per gram.
  - D. 7 Calories per gram.
  - E. 9 Calories per gram.

2. Fiber provides:
  - A. 0 Calories per gram.
  - B. 2 Calories per gram.
  - C. 4 Calories per gram.
  - D. 7 Calories per gram.
  - E. 9 Calories per gram.
3. Fatty acids provide:
  - A. 0 Calories per gram.
  - B. 2 Calories per gram.
  - C. 4 Calories per gram.
  - D. 7 Calories per gram.
  - E. 9 Calories per gram.
4. Plant protein provides:
  - A. 0 Calories per gram.
  - B. 2 Calories per gram.
  - C. 4 Calories per gram.
  - D. 7 Calories per gram.
  - E. 9 Calories per gram.
5. Major minerals provide:
  - A. 0 Calories per gram.
  - B. 2 Calories per gram.
  - C. 4 Calories per gram.
  - D. 7 Calories per gram.
  - E. 9 Calories per gram.
6. Which of the following is a function of minerals?
  - A. Provide 4 Calories per gram
  - B. Regulate fluid balance
  - C. Speed up metabolism
  - D. Are converted to stored fat when in excess
  - E. Make up cell membranes
7. Which of the following statements is true about cholesterol?
  - A. It is an essential nutrient.
  - B. It can be synthesized (made) inside the body.
  - C. It provides 9 Calories per gram.
  - D. It functions as an enzyme cofactor in metabolism.
  - E. All of the above are true.
8. Which of the following answers includes only vitamins?
  - A. Thiamin, iron, glucose
  - B. Folate, iodine, chromium
  - C. Pantothenic acid, biotin, vitamin C
  - D. Calcium, cholesterol, cobalt
  - E. Phosphorus, sulfur, fructose
9. Which of the following dietary substances may function as an enzyme cofactor?
  - A. Sugars
  - B. Fiber
  - C. Amino acids
  - D. Vitamins
  - E. Water

10. The human body prefers to burn \_\_\_\_\_ for energy.
  - A. Carbohydrates
  - B. Proteins
  - C. Phospholipids
  - D. Sterols
  - E. Water
11. How are minerals categorized?
  - A. Fat or water soluble
  - B. Major and trace
  - C. Organic and inorganic
  - D. Essential and nonessential
  - E. Blood or bone
12. Which of the following foods is predominately a source of polyunsaturated fatty acids?
  - A. Animal fat
  - B. Soybean oil
  - C. Butter
  - D. Olive oil
  - E. Coconut oil
13. Phospholipids are used to make:
  - A. Proteins
  - B. Fat
  - C. Cell membranes
  - D. Bone
  - E. ATP
14. What does it mean for an essential mineral to be labeled as “trace”?
  - A. The total quantity of the mineral in the adult reference male body is less than or equal to 1 gram.
  - B. The total quantity of the mineral in the adult reference male body is less than or equal to 2 grams.
  - C. The total quantity of the mineral in the adult reference male body is less than or equal to 3 grams.
  - D. The total quantity of the mineral in the adult reference male body is less than or equal to 4 grams.
  - E. The total quantity of the mineral in the adult reference male body is less than or equal to 5 grams.
15. Characteristics of a sound diet include:
  - A. low carbohydrate and high protein.
  - B. Calorie control and nutritional adequacy.
  - C. moderation, balance, and variety.
  - D. A and C
  - E. B and C
16. Macronutrients include:
  - A. water, protein, and minerals.
  - B. fat, carbohydrate, and vitamins.
  - C. protein, fat, and carbohydrate.
  - D. carbohydrate, minerals, and protein.



17. Four calories per gram are provided by:
  - A. fat and cholesterol.
  - B. carbohydrates and alcohol.
  - C. protein and fat-soluble vitamins.
  - D. carbohydrates and protein.
18. *Organic* means that the substance is:
  - A. carbon containing.
  - B. wholesome.
  - C. steroid free.
  - D. pesticide free.
19. Organic compounds include:
  - A. water and fat.
  - B. phospholipids and protein.
  - C. cholesterol and minerals.
  - D. carbohydrates and calcium.
20. The categories of carbohydrate are:
  - A. high quality and low quality.
  - B. essential and nonessential.
  - C. soluble and insoluble.
  - D. simple and complex.
21. Monosaccharides include:
  - A. lactose and maltose.
  - B. fructose and galactose.
  - C. glucose and sucrose.
  - D. glucose and maltose.
22. Which fatty acids have no double bonds?
  - A. Saturated fatty acids
  - B. Monounsaturated fatty acids
  - C. Polyunsaturated fatty acids
  - D. *Trans* fatty acids
23. A good food source of monounsaturated fatty acids is:
  - A. safflower oil.
  - B. palm oil.
  - C. peanut oil.
  - D. canola oil.
24. Which of the following scenarios could lead to “malnutrition”?
  - A. A person is taking single-nutrient supplements every day at a level well above the tolerable upper intake level (UL).
  - B. A person is chronically under-consuming total Calories in their diet.
  - C. A person is chronically over-consuming total Calories in their diet.
  - D. B and C
  - E. A, B, and C.
25. Which of the following foods would have the most nutrient density?
  - A. Ice cream
  - B. French fries
  - C. Yogurt
  - D. Water

26. Which of the following factors could affect food choice?
- A. Knowledge
  - B. Availability
  - C. Social factors
  - D. Economics
  - E. All of the above
27. A simple carbohydrate source would be:
- A. bread.
  - B. rice.
  - C. pasta.
  - D. fruit.
  - E. legumes.
28. Which nutrient would add the best satiety value to a meal?
- A. Fat
  - B. Protein
  - C. Carbohydrate
  - D. Vitamins
  - E. Minerals
29. Choose one of the following answers that includes only the trace minerals.
- A. Calcium, iron, and copper
  - B. Iron, zinc, and iodine
  - C. Magnesium, cobalt, and selenium
  - D. Phosphorus, fluoride, and chromium
  - E. Fluoride, cobalt, and sulfur
30. How much water intake is needed to stay in water balance?
- A. 0.5 milliliters per Calorie expended
  - B. 1.0 milliliters per Calorie expended
  - C. 1.5 milliliters per Calorie expended
  - D. 2.0 milliliters per Calorie expended