**Chapter 1. Introduction to Nutrition**

**TEST QUESTIONS**

**Multiple Choice**

1. The nourishing substances in food that provide energy and promote the growth and maintenance of the body are called:
   1. carbohydrates
   2. fats
   3. nutrients
   4. DRIs

**Difficulty:** Easy

**Learning Objective:** Explain what nutrition is and why it should be important to you on a personal level and as a culinary/foodservice professional.

**Section Reference:** Nutrition and You

1. Individuals who are overweight or obese have an increased risk of having:
   1. heart disease
   2. measles
   3. pneumonia
   4. AIDS

**Difficulty:** Medium

**Learning Objective:** Explain what nutrition is and why it should be important to you on a personal level and as a culinary/foodservice professional.

**Section Reference:** Nutrition and You

1. The typical American does not eat enough:
   1. whole grains
   2. fruits
   3. fish
   4. all of the above

**Difficulty:** Easy

**Learning Objective:** Identify three food groups we don’t eat enough of and two food groups we eat too much of.

**Section Reference:** Nutrition and You

1. The most important consideration when choosing something to eat is:
   1. cost
   2. convenience
   3. nutrition
   4. taste

**Difficulty:** Medium

**Learning Objective:** Discuss five factors that influence what you eat.

**Section Reference:** Why Do You Eat the Foods You Do?

1. After age 50, your number of taste buds:
   1. increases
   2. decreases
   3. stays the same
   4. changes depending on your diet

**Difficulty:** Medium

**Learning Objective:** Define flavor and explain how it involves all five senses.

**Section Reference:** Why Do You Eat the Foods You Do?

1. Umami, the fifth basic taste, can be found in:
   1. Tomatoes
   2. green beans
   3. grapefruit
   4. hot chili peppers

**Difficulty:** Medium

**Learning Objective:** Define flavor and explain how it involves all five senses.

**Section Reference:** Why Do You Eat the Foods You Do?

1. Textures that most people like include:
   1. tough
   2. crumbly
   3. soggy
   4. creamy

**Difficulty:** Easy

**Learning Objective:** Define flavor and explain how it involves all five senses.

**Section Reference:** Why Do You Eat the Foods You Do?

1. Which group is more likely to consider nutrition when choosing foods?
   1. women and older adults
   2. teenagers
   3. young adults
   4. men

**Difficulty:** Medium

**Learning Objective:** Discuss five factors that influence what you eat.

**Section Reference:** Why Do You Eat the Foods You Do?

1. Your energy needs when your body is at rest and awake are referred to as:
   1. kilocalories
   2. basal metabolism
   3. exercise metabolism
   4. thermic effect of food

**Difficulty:** Medium

**Learning Objective:** Define kilocalories, identify the three factors that influence the number of kcalories you use every day, and explain the effect of the following on basal metabolic rate: gender, age, exercise, and growth.

**Section Reference:** What Are Kilocalories?

1. The BMR for women when compared to men is:
   1. lower than for men
   2. higher than for men
   3. about the same
   4. hard to compare

**Difficulty:** Medium

**Learning Objective:** Define kilocalories, identify the three factors that influence the number of kcalories you use every day, and explain the effect of the following on basal metabolic rate: gender, age, exercise, and growth.

**Section Reference:** What Are Kilocalories?

1. Most of the energy you burn is due to:
2. basal metabolism
3. physical activity
4. thermic effect of food
5. all of the above

**Difficulty:** Medium

**Learning Objective:** Define kilocalories, identify the three factors that influence the number of kcalories you use every day, and explain the effect of the following on basal metabolic rate: gender, age, exercise, and growth.

**Section Reference:** What Are Kilocalories?

1. The smallest contributor to your energy needs is:
   1. basal metabolism
   2. physical activity
   3. the energy needed to digest and absorb food
   4. all of the above

**Difficulty:** Medium

**Learning Objective:** Define kilocalories, identify the three factors that influence the number of kcalories you use every day, and explain the effect of the following on basal metabolic rate: gender, age, exercise, and growth.

**Section Reference:** What Are Kilocalories?

1. Smoking and caffeine have the following effect on energy expenditure:
   1. They increase energy expenditure.
   2. They decrease energy expenditure.
   3. Smoking decreases while caffeine increases energy expenditure.
   4. Smoking increases while caffeine decreases energy expenditure.

**Difficulty:** Easy

**Learning Objective:** Define kilocalories, identify the three factors that influence the number of kcalories you use every day, and explain the effect of the following on basal metabolic rate: gender, age, exercise, and growth.

**Section Reference:** What Are Kilocalories?

1. A nutrient that does not provide kcalories is:
   1. carbohydrate
   2. protein
   3. iron
   4. fat

**Difficulty:** Easy

**Learning Objective:** Name the six classes of nutrients and their characteristics.

**Section Reference:** What Are Nutrients?

1. Protein is an example of a:
   1. micronutrient
   2. macronutrient
   3. DRI
   4. non-nutrient

**Difficulty:** Medium

**Learning Objective:** Name the six classes of nutrients and their characteristics.

**Section Reference:** What Are Nutrients?

1. Lipids provide \_\_\_\_\_ kcalories per gram.
   1. 4
   2. 5
   3. 7
   4. 9

**Difficulty:** Medium

**Learning Objective:** Name the six classes of nutrients and their characteristics.

**Section Reference:** What Are Nutrients?

1. Butter and margarine are classified as:
   1. carbohydrates
   2. lipids
   3. proteins
   4. vitamins

**Difficulty:** Easy

**Learning Objective:** Name the six classes of nutrients and their characteristics.

**Section Reference:** What Are Nutrients?

1. Sugars are a type of:
   1. carbohydrate
   2. lipids
   3. protein
   4. vitamin

**Difficulty:** Medium

**Learning Objective:** Name the six classes of nutrients and their characteristics.

**Section Reference:** What Are Nutrients?

1. Foods high in protein include:
   1. whole grains
   2. fruits and vegetables
   3. meat and poultry
   4. all of the above

**Difficulty:** Easy

**Learning Objective:** Name the six classes of nutrients and their characteristics.

**Section Reference:** What Are Nutrients?

1. Which nutrient is ranked second only to oxygen as essential to life?
   1. sugar
   2. protein
   3. vitamins
   4. water

**Difficulty:** Easy

**Learning Objective:** Name the six classes of nutrients and their characteristics.

**Section Reference:** What Are Nutrients?

1. Nutrients that either cannot be made in the body or cannot be made in the quantities needed by the body are called:
   1. essential nutrients
   2. vital nutrients
   3. organic nutrients
   4. dense nutrients

**Difficulty:** Medium

**Learning Objective:** Name the six classes of nutrients and their characteristics.

**Section Reference:** What Are Nutrients?

1. A(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ diet avoids excessive amounts of kcalories or any particular food or food group.
   1. adequate
   2. balanced
   3. moderate
   4. varied

**Difficulty:** Medium

**Learning Objective:** Describe four characteristics of a nutritious diet.

**Section Reference:** Characteristics of a Nutritious Diet

1. An example of a nutrient dense food is a(n):
   1. potato chips
   2. chocolate bar
   3. pretzel
   4. orange

**Difficulty:** Easy

**Learning Objective:** Give two examples of foods that are nutrient dense and two that are empty kcalorie foods and explain why you chose these foods.

**Section Reference:** Characteristics of a Nutritious Diet

1. Which of the following is an example of a processed food?
   1. whole-grain crackers
   2. ground beef
   3. fresh pear
   4. 1% milk

**Difficulty:** Hard

**Learning Objective:** Identify a given food as a whole food, processed food, enriched or fortified foods, and/or organic food.

**Section Reference:** How to Recognize Whole, Processed, Fortified, and Organic Foods

1. White flour must be \_\_\_\_\_\_\_\_\_\_\_\_\_with several vitamins and iron.
   1. fortified
   2. enriched
   3. enhanced
   4. moderated

**Difficulty:** Medium

**Learning Objective:** Identify a given food as a whole food, processed food, enriched or fortified foods, and/or organic food.

**Section Reference:** How to Recognize Whole, Processed, Fortified, and Organic Foods

1. Vitamin D in milk is an example of:
   1. fortification
   2. enrichment
   3. enhancement
   4. moderation

**Difficulty:** Hard

**Learning Objective:** Identify a given food as a whole food, processed food, enriched or fortified foods, and/or organic food.

**Section Reference:** How to Recognize Whole, Processed, Fortified, and Organic Foods

1. Organic food is produced without:
   1. most conventional pesticides
   2. fertilizers made with synthetic ingredients
   3. ionizing radiation
   4. all of the above

**Difficulty:** Medium

**Learning Objective:** Identify a given food as a whole food, processed food, enriched or fortified foods, and/or organic food.

**Section Reference:** How to Recognize Whole, Processed, Fortified, and Organic Foods

1. The “D” in RDA stands for:
   1. daily
   2. dietary
   3. dietetic
   4. daytime

**Difficulty:** Medium

**Learning Objective:** Explain what is meant by Recommended Dietary Allowance, Adequate Intake, and Tolerable Upper Intake Level of a nutrient.

**Section Reference:** Dietary Reference Intakes

1. The dietary intake that is used when there is not enough research to set a RDA is the:
   1. Dietary Reference Intake
   2. Estimated Average Requirement
   3. Tolerable Upper Intake Level
   4. Adequate Intake

**Difficulty:** Medium

**Learning Objective:** Explain what is meant by Recommended Dietary Allowance, Adequate Intake, and Tolerable Upper Intake Level of a nutrient.

**Section Reference:** Dietary Reference Intakes

1. The range of intakes for a particular nutrient that is associated with reduced risk of chronic disease is:
   1. RDA
   2. UL
   3. EER
   4. AMDR

**Difficulty:** Medium

**Learning Objective:** Explain what is meant by Recommended Dietary Allowance, Adequate Intake, and Tolerable Upper Intake Level of a nutrient.

**Section Reference:** Dietary Reference Intakes

1. The process by which food is broken down into its components in the mouth, stomach, and small intestine is:
   1. digestion
   2. absorption
   3. metabolism
   4. basal metabolism

**Difficulty:** Medium

**Learning Objective:** Explain how food is digested and absorbed in the gastrointestinal tract.

**Section Reference:** What Happens When You Eat?

1. Compounds that speed up the breaking down of food so that nutrients can be absorbed are called:
   1. helpers
   2. minerals
   3. metabolites
   4. enzymes

**Difficulty:** Hard

**Learning Objective:** Explain how food is digested and absorbed in the gastrointestinal tract.

**Section Reference:** What Happens When You Eat?

1. The digestive system starts with the:
   1. throat
   2. stomach
   3. mouth
   4. small intestine

**Difficulty:** Easy

**Learning Objective:** Explain how food is digested and absorbed in the gastrointestinal tract.

**Section Reference:** What Happens When You Eat?

1. The digestive system organ that passes waste to be excreted and absorbs some water and minerals is the:
   1. stomach
   2. small intestine
   3. large intestine
   4. liver

**Difficulty:** Medium

**Learning Objective:** Explain how food is digested and absorbed in the gastrointestinal tract.

**Section Reference:** What Happens When You Eat?

1. An acid found in the stomach helps:
   1. absorb alcohol
   2. destroy harmful bacteria
   3. destroy important vitamins
   4. all of the above

**Difficulty:** Medium

**Learning Objective:** Explain how food is digested and absorbed in the gastrointestinal tract.

**Section Reference:** What Happens When You Eat?

1. Which nutrient takes the longest to exit from the stomach?
   1. carbohydrate
   2. protein
   3. fat
   4. water

**Difficulty:** Medium

**Learning Objective:** Explain how food is digested and absorbed in the gastrointestinal tract.

**Section Reference:** What Happens When You Eat?

1. Most nutrients are absorbed through the villi of the:
   1. stomach
   2. small intestine
   3. large intestine
   4. pharynx

**Difficulty:** Medium

**Learning Objective:** Explain how food is digested and absorbed in the gastrointestinal tract.

**Section Reference:** What Happens When You Eat?

**True/False**

1. Our choice of diet strongly influences whether we will get certain diseases such as heart disease.

**Difficulty:** Easy

**Learning Objective:** Explain what nutrition is and why it should be important to you on a personal level and as a culinary/foodservice professional.

**Section Reference:** Nutrition and You

1. A significant number of customers at restaurants are seeking healthier menu options.

**Difficulty:** Easy

**Learning Objective:** Explain what nutrition is and why it should be important to you on a personal level and as a culinary/foodservice professional.

**Section Reference:** Nutrition and You

1. Flavor and taste are the same thing.

**Difficulty:** Easy

**Learning Objective:** Define flavor and explain how it involves all five senses.

**Section Reference:** Why Do You Eat the Foods You Do?

1. Smelling foods is just as important to detecting flavors as is tasting foods.

**Difficulty:** Easy

**Learning Objective:** Define flavor and explain how it involves all five senses.

**Section Reference:** Why Do You Eat the Foods You Do?

1. The food industry very much influences what you choose to eat.

**Difficulty:** Easy

**Learning Objective:** Discuss five factors that influence what you eat.

**Section Reference:** Why Do You Eat the Foods You Do?

1. Your basal metabolic rates start to decrease about 2 percent each decade after age 50.

**Difficulty:** Easy

**Learning Objective:** Define kilocalories, identify the three factors that influence the number of kcalories you use every day, and explain the effect of the following on basal metabolic rate: gender, age, exercise, and growth.

**Section Reference:** What Are Kilocalories?

1. Alcohol is a nutrient that provides 7 kcalories per gram.

**Difficulty:** Medium

**Learning Objective:** Name the six classes of nutrients and their characteristics.

**Section Reference:** What Are Nutrients?

1. Whereas minerals can be destroyed by heat and light, vitamins are indestructible.

**Difficulty:** Hard

**Learning Objective:** Name the six classes of nutrients and their characteristics.

**Section Reference:** What Are Nutrients?

**Essay**

1. Explain the concept of nutrient density and give an example of a nutrient-dense food.

**Difficulty:** Medium

**Learning Objective:** Give two examples of foods that are nutrient dense and two that are empty kcalorie foods and explain why you chose these foods.

**Section Reference:** Characteristics of a Nutritious Diet

1. List the three factors on which your energy needs are based. Briefly describe each factor.

**Difficulty:** Medium

**Learning Objective:** Define kilocalories, identify the three factors that influence the number of kcalories you use every day, and explain the effect of the following on basal metabolic rate: gender, age, exercise, and growth.

**Section Reference:** What Are Kilocalories?

1. How is digestion different from absorption?

**Difficulty:** Medium

**Learning Objective:** Explain how food is digested and absorbed in the gastrointestinal tract.

**Section Reference:** What Happens When You Eat?

1. Describe five factors that influence food selection.

**Difficulty:** Easy

**Learning Objective:** Discuss five factors that influence what you eat.

**Section Reference:** Why Do You Eat the Foods You Do?

1. Describe four characteristics of a nutritious diet.

**Difficulty:** Medium

**Learning Objective:** Describe four characteristics of a nutritious diet.

**Section Reference:** Characteristics of a Nutritious Diet

**TEST QUESTIONS ANSWER KEY**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Multiple Choice** | | |  |  |
| 1. c | | 11. a | 21. a | 31. a |
| 1. a | | 12. c | 22. c | 32. d |
| 1. d | | 13. a | 23. d | 33. c |
| 1. d | | 14. c | 24. a | 34. c |
| 1. b | | 15. b | 25. b | 35. b |
| 1. a | | 16. d | 26. a | 36. c |
| 1. d | | 17. b | 27. d | 37. b |
| 1. a | | 18. a | 28. b |  |
| 1. b | | 19. c | 29. d |  |
| 1. a | | 20. d | 30. d |  |
|  |  | |  |  |
| **True/False** | | |  |  |
| 38. T | | 43. T |  |  |
| 39. T | | 44. F |  |  |
| 40. F | | 45. F |  |  |
| 41. T | |  |  |  |
| 42. T | |  |  |  |

**Essay Questions**

1. Nutrient density looks at the amount of nutrients in a food relative to the kcalories it contains. Broccoli is considered to have a high nutrient density because it is high in nutrients relative to the few kcalories it contains. Nutrient-dense foods and beverages are lean or low in solid fats, and have little or sugar or sodium added to them. All vegetables, fruits, whole grains, seafood, eggs, beans and peas, unsalted nuts and seeds, fat-free and low-fat milk and milk products, and lean meats and poultry—when prepared without adding solid fats or sugars—are nutrient-dense foods.
2. The number of kcalories you need is based on three factors: your energy needs when your body is at rest and awake (referred to as basal metabolism), your level of physical activity, and the energy you need to digest and absorb food. Basal metabolic needs include energy needed for vital bodily functions when the body is at rest but awake.
3. Digestion is the process by which food is broken down into its components in the mouth, stomach, and small intestine with the help of digestive enzymes. Before the body can use any nutrients that are present in food, the nutrients must pass through the walls of the stomach or intestines into the body’s tissues, a process called absorption. Nutrients are absorbed into the blood, where they circulate throughout the body, delivering needed products to the cells.
4. Flavor

Other aspects of food (such as cost, convenience, nutrition)

Demographics

Culture and religion

Health

Social and emotional influences

Marketing and the media

Environmental concerns

1. An adequate diet provides enough kcalories, essential nutrients, and fiber to keep you healthy, whereas a moderate diet avoids taking in excessive amounts of kcalories or eating more of one food or food group than is recommended. Eating a balanced diet means eating more servings of nutrient-dense foods such as whole grains, fruits, and vegetables and fewer servings of foods such as cakes, cookies, and chips, which supply few nutrients. Last, you need a varied diet—in other words, you need to eat a wide selection of foods to get the necessary nutrients.