

Test Bank for Nutrition Through the Life Cycle 5th Edition by Brown

Chapter 1 – Nutrition Basics

Multiple Choice

1. Which of the following are the correct six categories of nutrients?
 - a. Fat, alcohol, carbohydrate, protein, vitamins, minerals
 - b. Fat, carbohydrate, fiber, protein, vitamins, minerals
 - c. Fat, carbohydrate, protein, water, vitamins, minerals
 - d. Fat, carbohydrate, protein, fiber, water, vitamins
 - e. Fat, carbohydrate, protein, fiber, water, alcohol

ANS: c DIF: Fact-based REF: 3 OBJ: 1.1

2. Which of the following are considered to be “essential” nutrients?
 - a. Fiber
 - b. Cholesterol
 - c. Linoleic and alpha-linolenic acid
 - d. Glucose
 - e. All of the above are considered essential

ANS: c DIF: Fact-based REF: 3 OBJ: 1.1

3. A “calorie” is _____.
 - a. a measure of the energy transferred from food to the body
 - b. the amount of energy inside fat cells
 - c. considered to be a nutrient
 - d. measured in units known as kilograms
 - e. none of the above

ANS: a DIF: Fact-based, easy REF: 3 OBJ: 1.1

4. The general term used to describe recommended intake levels of nutrients (intake standards) for planning and assessing diets in all healthy people is:
 - a. Adequate Intake Levels.
 - b. Tolerable Upper Limits.
 - c. Essential Nutrients.
 - d. Dietary Reference Intakes.

ANS: d DIF: Fact-based, medium REF: 3 OBJ: 1.1

5. The Estimated Average Requirement (EAR) means:
 - a. an intake level that meets the nutrient needs of 98% of healthy people.
 - b. an intake value that meets the nutrient needs of half the healthy individuals in a group.
 - c. the upper limits of a nutrient compatible with health.

- d. the nutrient intake standard for healthy people.
- e. that this is a “tentative” RDA.

ANS: b DIF: Fact-based REF: 4 OBJ: 1.1

6. It is recommended that ____ of Calories come from carbohydrates.
- a. 40-50%
 - b. 45-55%
 - c. 45-65%
 - d. 50-65%
 - e. 50-70%

ANS: c DIF: Fact-based REF: 6 OBJ: 1.1

7. What two monosaccharides are found in sucrose (table sugar)?
- a. Glucose and lactose
 - b. Glucose and glucose
 - c. Glucose and maltose
 - d. Glucose and fructose

ANS: d DIF: Fact-based, medium REF: 5 OBJ: 1.1

8. Diets that include low-glycemic index carbohydrates have been found to be beneficial in:
- a. improving blood glucose control in people with diabetes.
 - b. reducing elevated levels of blood cholesterol and triglycerides.
 - c. increasing levels of HDL cholesterol.
 - d. decreasing the risk of developing type 2 diabetes.
 - e. All of the above

ANS: e DIF: Fact-based REF: 5 OBJ: 1.1

9. Hydrogenation is:
- a. the addition of hydrogen to oil in order to make it solid.
 - b. a process that enhances the shelf life of products.
 - c. the alteration of the molecular structure of fatty acids.
 - d. All of the above
 - e. a and c only

ANS: d DIF: Fact-based REF: 9 OBJ: 1.1

10. Current recommendations call for ____ of total calories from fat.
- a. 20-35%
 - b. 35-40%
 - c. 40-50%
 - d. <30%
 - e. No specific percentage

ANS: a DIF: Fact-based REF: 10 OBJ: 1.1

11. Fats that are considered unhealthy are those that elevate levels of LDL cholesterol and include:

- a. *trans* fats.
- b. saturated fats.
- c. monounsaturated fats.
- d. cholesterol.
- e. a, b, and d only.

ANS: e DIF: Fact-based REF: 10 OBJ: 1.1

12. Protein should contribute approximately ____ of your energy intake.
- a. <10%
 - b. 10-35%
 - c. 40%
 - d. 50%
 - e. >50%

ANS: b DIF: Fact-based, easy REF: 8 OBJ: 1.1

13. Which of the following combinations represents an example of complementary proteins?
- a. Grains and seeds
 - b. Grains and beans
 - c. Seeds and beans
 - d. Soybeans and milk
 - e. Eggs and onions

ANS: a DIF: Application-based, medium REF: 6|8 OBJ: 1.1

14. A food product ingredient label reads: wheat flour, vegetable shortening, sugar, salt, and cornstarch. What item would contribute the greatest amount of **WEIGHT** in that food?
- a. Salt
 - b. Sugar
 - c. Wheat flour
 - d. Cornstarch
 - e. Vegetable shortening

ANS: c DIF: Application-based REF: 35 OBJ: 1.2

15. Which of the following statements about food labels is **FALSE**?
- a. They note the presence of common food allergens.
 - b. They appear on almost all multiple-ingredient foods.
 - c. They list the content of fat, saturated fat, *trans* fat, and cholesterol.
 - d. They contain information about the amount recommended for ingestion each day.
 - e. They list the % Daily Value (%DV) for each relevant nutrient.

ANS: d DIF: Fact-based REF: 34-35 OBJ: 1.2

16. Producers of bread, cornmeal, crackers, flour tortillas, white rice, and other products made with refined grains **MUST** use flours enriched with which of the following?
- a. Thiamin
 - b. Niacin
 - c. Iron
 - d. Riboflavin
 - e. All of the above

ANS: e DIF: Fact-based REF: 35 OBJ: 1.2

17. Foods are made “functional” by:
- a. taking out potentially harmful components.

- b. increasing the amount of nutrients and beneficial non-nutrients.
- c. adding new beneficial compounds to them.
- d. All of the above
- e. a and b only

ANS: d DIF: Fact-based REF: 36 OBJ: 1.2

Use the following nutrition label to answer questions 18 through 21.

Nutrition Facts	
Serving Size ¹ /4 cup (40g)	
Amount Per Serving	
Calories 170	Calories from Fat 45
% Daily Value*	
Total Fat 5g	5%
	Saturated Fat 0.5g 3%
<i>Trans</i> Fat 0g	
Cholesterol 0mg 0%	
Sodium 10mg 0%	
Potassium 310mg 9%	
Total Carbohydrate 31g 10%	
Dietary Fiber 2g	
Sugars 29g	
Protein 1g	2%
Vitamin A 0%	• Iron 6%
Calcium 2%	•

18. What is the percent of calories from fat?

- a. 5%
- b. 16%
- c. 26%
- d. 35%

ANS: c DIF: Application-based, easy REF: 35 OBJ: 1.2

19. What mandatory nutrient is missing from the food label?

- a. Unsaturated fats
- b. Simple sugars
- c. Vitamin C
- d. Vitamin K

ANS: c DIF: Fact-based, medium REF: 35 OBJ: 1.2

20. Percent Daily Values on the Nutrition Facts label are based on a ____-calorie diet.

- a. 1000
- b. 1200
- c. 1500
- d. 1800
- e. 2000

ANS: e DIF: Fact-based, easy REF: 4|35 OBJ: 1.1|1.2

21. Does this product fall within the Acceptable Macronutrient Distribution Range for fat?
- a. Yes
 - b. No

ANS: a DIF: Application-based REF: 10 OBJ: 1.1

22. After class, you go to Jamba Juice and get an “Orange-a-Peel” smoothie that contains the following nutrients: 9 g of protein, 102 g carbohydrate, and 1 g of fat. How many total Calories does this provide?
- a. 299
 - b. 399
 - c. 448
 - d. 453
 - e. 546

ANS: d DIF: Application-based REF: 5|6|8 OBJ: 1.1

23. Based on your calculations in question #22, what is the % fat in the smoothie?
- a. 0%
 - b. 2%
 - c. 10%
 - d. 15%
 - e. 19%

ANS: b DIF: Application-based REF: 5|6|8 OBJ: 1.1

24. A woman ate $\frac{1}{2}$ of a pita bread sandwich filled with tuna salad. The entire sandwich contained 20 grams carbohydrate, 8 grams protein, and 5 grams fat. Approximately how many calories did she obtain?
- a. 80
 - b. 130
 - c. 150
 - d. 160

ANS: a DIF: Application-based, medium REF: 5|6|8 OBJ: 1.1

25. If the woman in question #24 drank a glass of regular, fortified milk, what is the most important essential nutrient that she added to her diet?
- a. Calcium
 - b. Cholesterol
 - c. Fluoride
 - d. Glucose
 - e. Vitamin C

ANS: a DIF: Application-based, easy REF: 22|24-25 OBJ: 1.1

26. Which of the following is an example of an empty-calorie food?

- a. Diet cola
- b. Red kidney beans found in chili
- c. Coffee
- d. Potato chips

ANS: d DIF: Application-based, medium REF: 34 OBJ: 1.1

27. Which of the following is **NOT** true about the development of nutrient deficiencies or toxicities?
- a. Nutrient deficiencies begin after a period of inadequate nutrient intake.
 - b. Cellular processes become impaired.
 - c. Physical signs and symptoms of toxicity or deficiency appear.
 - d. Returning dietary intake to normal can reverse all the problems that have occurred.

ANS: d DIF: Fact-based, medium REF: 23|31 OBJ: 1.1

28. A 65 year old was buying an iron supplement for her “weak blood.” She asked the pharmacist about the highest amount she should take daily. What dietary intake standards could the pharmacist use to provide the best recommendation?
- a. Recommended Dietary Allowances (RDAs)
 - b. Adequate Intakes (AIs)
 - c. Tolerable Upper Intake Levels (ULs)
 - d. Estimated Average Requirements (EARs)

ANS: c DIF: Application-based, hard REF: 4 OBJ: 1.1

29. What food serving below does **NOT** provide significant amounts of iron?
- a. Round steak, 3 oz
 - b. Pork and beans, 1/2 cup
 - c. Peaches, 1/2 cup
 - d. Iron-fortified breakfast cereal, 1 cup

ANS: c DIF: Fact-based, easy REF: 25|29 OBJ: 1.1

30. What nutrient would someone susceptible to high blood pressure be consuming too much of with a meal consisting of a salami sandwich, chicken noodle soup, and whole milk?
- a. Sugar
 - b. Caffeine
 - c. Sodium
 - d. Water
 - e. Calcium

ANS: c DIF: Application-based, easy REF: 26-27 OBJ: 1.3

31. In the 2010 Dietary Guidelines for Americans, what types of grains are encouraged? a.
- Enriched grains
 - b. Fortified grains
 - c. Whole grains

d. Non-whole grains

ANS: c DIF: Fact-based, easy REF: 45 OBJ: 1.6

32. If an adult is trying to decrease her risk of heart disease, which of the following should she try to avoid?

- a. Breaded and fried foods
- b. Packaged snack foods
- c. Foods made with *trans* fat
- d. Saturated fats
- e. All of the above

ANS: e DIF: Application-based, medium REF: 10|11-12 OBJ: 1.1

33. Phytochemicals are chemical substances found in _____ that protect human body processes and may benefit health.

- a. animals
- b. the human body
- c. plants
- d. both plants and animals
- e. None of the above

ANS: c DIF: Fact-based, medium REF: 13 OBJ: 1.1

34. Which of the following vitamins acts as an antioxidant in the body?

- a. Vitamin C
- b. Vitamin E
- c. Beta-carotene
- d. All of the above
- e. a and b only

ANS: d DIF: Fact-based REF: 13 OBJ: 1.1

35. Adults are approximately _____ water by weight.

- a. 20-30%
- b. 40-50%
- c. 50-60%
- d. 60-70%
- e. 70-80%

ANS: d DIF: Fact-based REF: 22 OBJ: 1.1

36. Which of the following is **NOT** one of the roles that water plays in the body?

- a. Energy transformation
- b. Energy metabolism regulation
- c. Excretion of wastes
- d. Temperature regulation
- e. Medium in which most chemical reactions take place

ANS: b DIF: Fact-based REF: 22 OBJ: 1.1

37. The balance of fluids, nutrients, gases, temperature, and other conditions needed to ensure proper functioning of cells is known as:
- regulation.
 - homeostasis.
 - energy balance.
 - cellular respiration.
 - None of the above

ANS: b DIF: Fact-based REF: 23 OBJ: 1.1

38. When too few calories are consumed, the body will obtain energy from which of the following sources?

- Glycogen
- Fat stores
- Protein from organs
- All of the above
- a and b only

ANS: e DIF: Application-based REF: 31 OBJ: 1.1

39. Secondary malnutrition may be precipitated by:

- medication.
- a disease state.
- a surgical procedure.
- All of the above
- b and c only

ANS: d DIF: Fact-based REF: 31 OBJ: 1.1

40. Nutrient-dense foods can be defined as:

- foods that are both good sources of nutrients and low in Calories.
- foods that contain low amounts of nutrients and are high in Calories.
- foods that are both good sources of nutrients and high in Calories.
- foods that contain low amounts of nutrients and are low in Calories.
- all animal-derived foods.

ANS: a DIF: Fact-based REF: 34 OBJ: 1.1

41. Which of the following statements reflects the most accurate assessment measurement?

- An older adult weighing herself at home
- A new breastfeeding mom recording what she ate over the past 24 hours
- A dietitian interviewing a mom with a 5-year-old toddler about what he ate over the past 24 hours and then asking her to record what the toddler ate over the next two days
- A physician asking the height of an 80-year-old male patient

ANS: c DIF: Application-based, hard REF: 39 OBJ: 1.4

42. Which of the following would **NOT** be considered one of the four components of nutrition assessment?
- a. Anthropometric
 - b. Biochemical
 - c. Clinical/physical
 - d. Initial evaluation
 - e. Dietary

ANS: d DIF: Fact-based REF: 39 OBJ: 1.4

43. Inspection of hair, eyes, skin, and posture is part of the nutrition assessment component known as the:
- a. diet history.
 - b. anthropometrics.
 - c. biochemical testing.
 - d. clinical examination.
 - e. initial evaluation.

ANS: d DIF: Fact-based REF: 39 OBJ: 1.4

Use the following information to answer questions 44 -48.

Jill is a very active teenager who has been maintaining her current weight of 125 pounds. Her average daily macronutrient intake consists of 250 g carbohydrate, 100 g total fat, 30 g saturated fat, and 50 g protein.

44. How many Calories from carbohydrates is Jill consuming daily?
- a. 750
 - b. 1000
 - c. 1750
 - d. 2250

ANS: b DIF: Application-based REF: 5 OBJ: 1.1

45. The percentage of energy that comes from Jill's intake of carbohydrate is:
- a. 12%.
 - b. 25%.
 - c. 48%.
 - d. 57%.
 - e. 65%.

ANS: c DIF: Application-based REF: 5|6|8 OBJ: 1.1

46. Is this within the Acceptable Macronutrient Distribution Range for carbohydrate intake?
- a. Yes
 - b. No

ANS: a DIF: Application-based REF: 6 OBJ: 1.1

47. is The percentage of energy that comes from Jill's intake of fat is:
- a. 13%.
 - b. 30%.
 - c. 43%.

d. 56%.

ANS: c DIF: Application-based REF: 8 OBJ: 1.1

48. Is this within the Acceptable Macronutrient Distribution Range for fat intake?

a. Yes b. No

ANS: b DIF: Application-based REF: 10 OBJ: 1.1

49. Good food sources of antioxidants would include which of the following foods?

- a. Bananas, raisins, figs
- b. Oranges, sweet potatoes, bell peppers
- c. Spinach, blueberries, cranberries
- d. All of the above
- e. b and c only

ANS: e DIF: Application-based REF: 16-17|22 OBJ: 1.1

50. Which of the following groups of people would be considered most appropriate to recommend a dietary supplement to?

- a. Pregnant women
- b. People with poor or monotonous diets
- c. Lacto-ovo vegetarians
- d. All of the above
- e. a and b only

ANS: e DIF: Application-based REF: 32-34 OBJ: 1.1

51. Which of the following would **NOT** be an example of an approved dietary supplement claim?

- a. Calcium builds strong bones
- b. Calcium prevents bone fracture
- c. Vitamin E, an antioxidant, helps maintain cell membranes
- d. XYZ helps promote urinary tract health
- e. XYZ gives you energy and focus throughout your busy day

ANS: b DIF: Application-based REF: 35 OBJ: 1.2

52. Which of the following nutrients is considered nonessential?

- a. Vitamin C
- b. Iron

- c. Cholesterol
- d. Potassium
- e. Vitamin E

ANS: c DIF: Fact-based REF: 3 OBJ: 1.1

53. An example of a functional food would be:

- a. lactose-free milk.
- b. "Egg Beaters."
- c. orange juice with vitamin D added.
- d. All of the above
- e. a and c only

ANS: d DIF: Application-based REF: 36 OBJ: 1.2

54. Which of the following food choices provides a large amount of dietary probiotics?

- a. Fresh sauerkraut
- b. Soy sauce, tempeh, miso
- c. Buttermilk
- d. All of the above
- e. b and c only

ANS: d DIF: Application-based REF: 37 OBJ: 1.2

55. Key recommendations found in the 2010 Dietary Guidelines for Americans emphasize:

- a. the importance of achieving and maintaining a healthy body weight for prevention of overweight and obesity.
- b. increasing physical activity and reducing time spent doing sedentary behaviors.
- c. focusing on whole grains and highly colored vegetables.
- d. cooking foods to safe temperatures.
- e. These are all key points.

ANS: e DIF: Fact-based REF: 45 OBJ: 1.6

56. The water-soluble vitamins include:

- a. A, D, E, and K.
- b. A and C.
- c. B-complex and C.
- d. B-complex and K.

e. All vitamins are water soluble.

ANS: c DIF: Fact-based REF: 10|13 OBJ: 1.1

57. The fat-soluble vitamins include:

- a. A, D, E, and K.
- b. A and C.
- c. B-complex and C.
- d. B-complex and K.
- e. All vitamins are fat soluble.

ANS: a DIF: Fact-based REF: 10|13 OBJ: 1.1

58. Foods permitted for consumption according to Muslim dietary laws:

- a. are called kosher foods.
- b. are called halal foods.
- c. include alcoholic beverages.
- d. do not include meats.

ANS: b DIF: Fact-based REF: 38 OBJ: 1.3

59. Which of the following statements about national food and nutrition programs is true?

- a. The School Lunch Program is the U.S.'s largest food assistance program.
- b. Women with incomes above the poverty line are automatically ineligible for WIC.
- c. None of the USDA food assistance programs has been shown to be cost effective.
- d. WIC vouchers can be exchanged for peanut butter, fruits, and vegetables.

ANS: d DIF: Fact-based REF: 42-43 OBJ: 1.5

True/False

1. The type of fat consumed is more important to health than is the total fat intake.

ANS: T DIF: Fact-based REF: 10 OBJ: 1.1

2. Dietary cholesterol intake affects blood cholesterol levels more than saturated and unsaturated fat intakes.

ANS: F DIF: Fact-based, easy REF: 10 OBJ: 1.1

3. A diet low in fat-soluble vitamins will result in a more rapid onset of deficiency symptoms than one low in water-soluble vitamins.

ANS: F DIF: Application-based REF: 10|13 OBJ: 1.1

4. Typically, we absorb a greater percentage of minerals than vitamins.

ANS: F DIF: Fact-based REF: 22 OBJ: 1.1

5. Poor nutrition or malnutrition can result from both inadequate and excessive levels of nutrient intake.

ANS: T DIF: Fact-based REF: 31 OBJ: 1.1

6. Gastrointestinal bleeding or alcoholism may cause secondary malnutrition.

ANS: T DIF: Application-based REF: 31 OBJ: 1.1

7. Not having enough money to buy food to eat is an example of a potential cause of primary malnutrition.

ANS: T DIF: Application-based, medium REF: 31 OBJ: 1.1

8. Water is a nonessential nutrient.

ANS: F DIF: Fact-based, easy REF: 3 OBJ: 1.1

9. There are no programs to improve eating behaviors in school-aged children.

ANS: F DIF: Fact-based, easy REF: 42-43 OBJ: 1.5

10. The DASH Eating plan is effective for reducing high blood pressure and risk of some types of cancer, osteoporosis, and heart disease.

ANS: T DIF: Fact-based, medium REF: 46 OBJ: 1.6

1-18

1. Food security	A. Intake levels that meet the nutrient needs of practically all healthy people
2. Food insecurity	B. Chemical substance that prevents or repairs damage to cells caused by oxidation
3. RDAs	C. Standards for daily intakes of nutrients developed for use on nutrition labels
4. DVs	D. Chemical substances found in plants that affect body processes in humans and may benefit health
5. Kwashiorkor	E. Protein deficiency characterized by edema and fatty liver
6. Hydrogenation	F. Availability of safe, nutritious food is limited
7. Polyunsaturated fatty acid	G. Access at all times to a sufficient supply of safe, nutritious food
8. Monounsaturated fatty acid	H. Fatty acid with one double bond
9. Antioxidant	I. The process of making a vegetable oil solid by adding hydrogen
10. Phytochemicals	J. Fatty acid with 2 or more double bonds

Key:

1. ANS: G DIF: Fact-based REF: 2 OBJ: 1.1 2. ANS: F DIF: Fact-based REF: 2 OBJ: 1.1 3. ANS: A DIF: Fact-based REF: 3 OBJ: 1.1 4. ANS: C DIF: Fact-based REF: 4 OBJ: 1.1 5. ANS: E DIF: Fact-based REF: 8 OBJ: 1.1 6. ANS: I DIF: Fact-based REF: 9 OBJ: 1.1 7. ANS: J DIF: Fact-based REF: 9 OBJ: 1.1 8. ANS: H DIF: Fact-based REF: 9 OBJ: 1.1

9. ANS: B DIF: Fact-based REF: 13 OBJ: 1.1
10. ANS: D DIF: Fact-based REF: 13 OBJ: 1.1

Short Answer

1. Describe the stages of nutrient deficiency and how they can be identified. What mechanisms does the human body have that help protect the body from poor health?

ANS: See pp. 23, 31-32.

DIF: Fact-based REF: 23|31-32 OBJ: 1.1

2. A teenager went to a fast-food restaurant and ordered a cheeseburger, french fries, and strawberry milkshake. How would these foods fit into a meal plan created using the ChooseMyPlate tool? Explain how you could modify his choices to make this meal better fit into the recommended dietary guidelines.

ANS: See pp. 45-47.

DIF: Application-based, medium REF: 45-47 OBJ: 1.6

3. John Smith, an executive of a technology firm, was following a popular diet that reduced the amount of carbohydrates to two ounces per day. Describe how limiting this macronutrient could cause him to fail to meet other nutrient intakes recommended in the Dietary Guidelines for Americans 2010.

ANS: See 31, 43-45.

DIF: Application-based, hard REF: 31|43-45 OBJ: 1.1|1.6

4. Write down what you ate for a breakfast meal in the past week and identify which nutrient categories were provided by each food. Also, identify which, if any, of the six categories were missing. What is one nonessential nutrient that you consumed at breakfast?

ANS: See p. 3.

DIF: Application-based, hard REF: 3 OBJ: 1.1

5. What is the purpose of having a “Supplement Facts” panel? What must these labels contain? Give an example of an approved supplement claim that may appear on the label.

ANS: See p. 35.

DIF: Fact-based REF: 35 OBJ: 1.2

6. Define the term *essential fatty acids*. Identify one essential fatty acid, the role it plays in the body, and two foods that provide essential fatty acids.

ANS: See pp. 8-9, 11-12.

DIF: Fact-based, easy REF: 8-9|11-12 OBJ: 1.1

7. Explain the following statement: “Genetic factors alone cannot explain the rapid rise in obesity and type 2 diabetes in the United States.” What factors are thought to be responsible for these conditions?

ANS: See pp. 31-32.

DIF: Application-based REF: 31-32 OBJ: 1.1