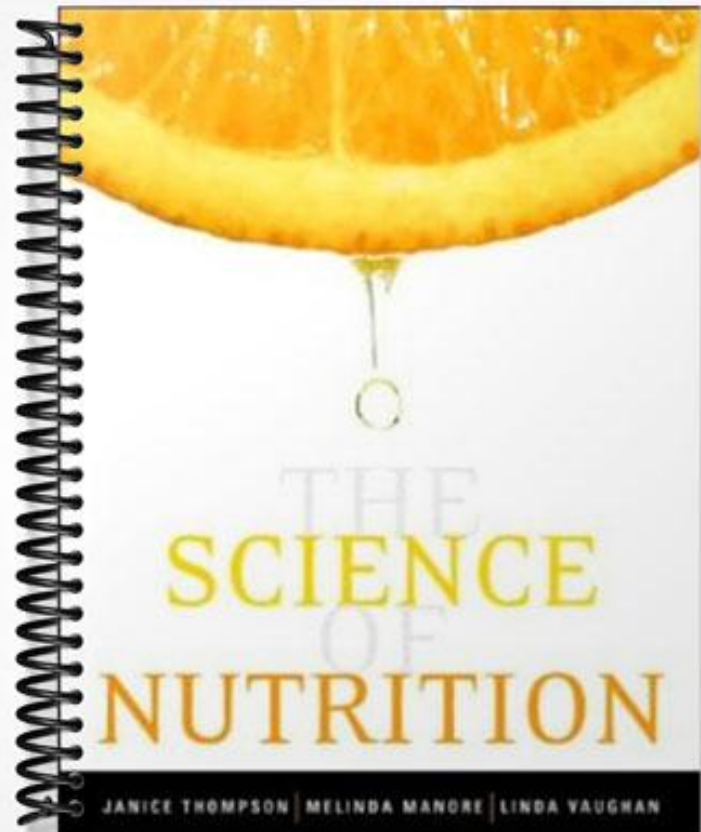


TEST BANK



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TEST BANK
for
The Science of Nutrition

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PEARSON

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Chapter 1 The Role of Nutrition in Our Health

Multiple-Choice Questions

1) Which of the following is TRUE regarding the science of nutrition?

- A) As compared to many other scientific disciplines, nutrition is a young science.
- B) Discoveries by the first nutritional scientists established the connection between deficiencies and illness.
- C) In developed countries, current research in nutrition focuses on the relationship between diet and chronic diseases.
- D) All of the above are true.

Answer: D

Page Ref: 4

2) Which statement is TRUE regarding nutrition as a science?

- A) Nutrition is not a science.
- B) The study of nutrition includes eating patterns and food safety.
- C) Nutrition is an ancient science that dates back to the fourteenth century.
- D) Our understanding of nutrition is complete; there is no new information.

Answer: B

Page Ref: 4

3) The two overarching goals of _____ are to increase quality and years of healthy life and to eliminate health disparities.

- A) Dietary Reference Intakes (DRIs)
- B) the USDA
- C) *Healthy People 2010*
- D) the American Dietetic Association (ADA)

Answer: C

Page Ref: 9

4) Which class of nutrients provides energy to the body?

- A) carbohydrate
- B) vitamin
- C) mineral
- D) water

Answer: A

Page Ref: 12

5) Which of the following is NOT an essential nutrient?

- A) water
- B) alcohol
- C) vitamins
- D) minerals

Answer: B

Page Ref: 11

6) Which of the following is a micronutrient?

- A) carbohydrates
- B) vitamins
- C) lipids
- D) alcohol

Answer: B

Page Ref: 15

7) What element makes protein different from carbohydrate and fat?

- A) carbon
- B) hydrogen
- C) nitrogen
- D) oxygen

Answer: C

Page Ref: 14

8) _____ are examples of inorganic nutrients.

- A) Vitamins
- B) Lipids
- C) Carbohydrates
- D) Minerals

Answer: D

Page Ref: 12

9) Which of the following nutrients is organic?

- A) minerals
- B) water
- C) protein
- D) both A and B

Answer: C

Page Ref: 12

10) Jane consumed a breakfast that contained 85 grams of carbohydrate, 20 grams of protein, and 18 grams of fat. How many kilocalories did Jane eat at breakfast?

- A) 492 kilocalories
- B) 582 kilocalories
- C) 917 kilocalories
- D) 1,107 kilocalories

Answer: B

Page Ref: 13

11) For dinner, Bill consumes 255 grams of carbohydrate, 70 grams of protein, and 50 grams of fat. In addition, Bill decides that he wants a glass of wine with his meal. If he drinks one glass of wine containing 8 grams of alcohol, how many total kilocalories does he consume in this meal?

- A) 56 kilocalories
- B) 540 kilocalories
- C) 1,675 kilocalories
- D) 1,806 kilocalories

Answer: D

Page Ref: 13

12) Christopher's lunch contains 121 grams of carbohydrate, 40 grams of protein, and 25 grams of fat. What percent of kilocalories in this meal come from fat?

- A) 19% B) 26% C) 34% D) 42%

Answer: B

Page Ref: 13

13) Which of the following are examples of carbohydrate-rich foods?

- A) butter and corn oil B) beef and pork
C) wheat and lentils D) bacon and eggs

Answer: C

Page Ref: 13

14) Which of the following is NOT classified as a lipid?

- A) triglyceride B) sterol C) glycine D) cholesterol

Answer: C

Page Ref: 14

15) Which of the following nutrients contains the element nitrogen?

- A) carbohydrates B) lipids
C) water D) proteins

Answer: D

Page Ref: 14

16) Which of the following nutrients is the most energy dense?

- A) carbohydrate B) lipid C) protein D) vitamin

Answer: B

Page Ref: 12-14

17) Which of the following BEST describes minerals?

- A) micronutrients that are broken down easily during digestion
B) micronutrients that are easily destroyed by heat and light
C) inorganic micronutrients found in a variety of foods
D) nutrients that are needed in large amounts by the body

Answer: C

Page Ref: 17

18) Which of the following is a primary function of dietary protein?

- A) primary fuel source for the brain
- B) large energy store
- C) regulating metabolism and fluid balance
- D) serving as a primary source of energy for the body

Answer: C

Page Ref: 13

19) The building blocks of proteins are called:

- A) fatty acids.
- B) amino acids.
- C) saccharides.
- D) nitrogen fragments.

Answer: B

Page Ref: 14

20) Which of the following is FALSE?

- A) Lipids are soluble in water.
- B) Lipids include triglycerides, phospholipids, and sterols.
- C) Lipids are comprised of carbon, hydrogen, and oxygen.
- D) Lipids yield more calories per gram than carbohydrate or protein.

Answer: A

Page Ref: 14

21) Which of the following is an example of an organic micronutrient?

- A) folate
- B) calcium
- C) fat
- D) iron

Answer: A

Page Ref: 15

22) Vitamin C and the B vitamins are examples of:

- A) nonessential vitamins.
- B) water-soluble vitamins.
- C) fat-soluble vitamins.
- D) trace vitamins.

Answer: B

Page Ref: 15

23) _____ are inorganic nutrients that are NOT broken down by the human body or destroyed by heat.

- A) Vitamins
- B) Minerals
- C) Proteins
- D) Fats

Answer: B

Page Ref: 15

24) Which of the following describes the vitamins A, D, E, and K?

- A) excreted via the urine
- B) soluble in water
- C) daily consumption is necessary
- D) can be stored in adipose and liver tissue

Answer: D

Page Ref: 15-16

25) Overconsumption of _____ has the greatest potential for toxicity.

- A) vitamin D
- B) vitamin C
- C) thiamin
- D) niacin

Answer: A

Page Ref: 16

26) Which of the following nutrients is classified as a major mineral?

- A) calcium
- B) iron
- C) iodine
- D) copper

Answer: A

Page Ref: 18

27) The standard used to estimate the daily nutrient needs of half of all healthy individuals is:

- A) EAR.
- B) AI.
- C) RDA.
- D) UL.

Answer: A

Page Ref: 18

28) An RDA is established based on the:

- A) EAR.
- B) DRI.
- C) UL.
- D) AI.

Answer: A

Page Ref: 19

29) The Dietary Reference Intakes (DRIs) were established to refocus nutrient recommendations toward preventing:

- A) nutrient deficiencies.
- B) infectious diseases.
- C) poverty.
- D) chronic diseases.

Answer: D

Page Ref: 18

30) The dietary standard that has been established regarding nutrients about which more research is needed to determine human requirements is the:

- A) DRI. B) RDA. C) AI. D) UL.

Answer: C

Page Ref: 19

31) The _____ represents the average daily nutrient intake level that meets the nutrient requirements for 97% to 98% of healthy individuals.

- A) EAR B) RDA C) UL D) AI E) AMDR

Answer: B

Page Ref: 20

32) The AMDR for Fat is:

- A) 20–35%. B) <10%. C) 10–35%. D) 45–65%.

Answer: A

Page Ref: 22

33) What is the most significant limitation to most dietary assessment tools?

- A) They provide limited information on current nutrient intakes.
B) They are easy to administer.
C) Some foods cannot be assessed.
D) They rely on a person's ability to self report.

Answer: D

Page Ref: 24

34) Which of the following dietary tools requires the most work from the client?

- A) diet history B) 24-hour recall
C) food-frequency questionnaire D) diet records

Answer: D

Page Ref: 24

35) Your grandmother has recently been diagnosed with type 2 diabetes. Which of the following professionals is most likely to be qualified to offer your grandmother assistance in planning her diabetic diet?

- A) Registered Dietitian (RD) B) PhD in nutrition
C) medical doctor (MD) D) nutritionist

Answer: A

Page Ref: 28

36) The BRFSS is:

- A) the government survey that tracks lifestyle habits that increase risks for developing chronic diseases.
- B) the government survey that tracks food consumption patterns in the United States.
- C) the government agency that protects the health and safety of the American people.
- D) the government agency that conducts medical research in the United States.

Answer: A

Page Ref: 30

37) Which federal agency conducts the Behavioral Risk Factor Surveillance System (BRFSS)?

- A) USDA (United States Department of Agriculture)
- B) CDC (Centers for Disease Control and Prevention)
- C) ADA (American Dietetic Association)
- D) NIH (National Institutes of Health)

Answer: B

Page Ref: 30

38) What percentage of deaths in the United States can be attributed to unhealthy lifestyle behaviors such as smoking, alcohol misuse, physical inactivity, and unbalanced diet?

- A) 10%
- B) 25%
- C) 40%
- D) 75%

Answer: C

Page Ref: 30

39) Which of the following is the largest organization of food and nutrition professionals in the United States and the world?

- A) NIH
- B) ADA
- C) CDC
- D) ASCN

Answer: B

Page Ref: 31

40) The SECOND step of the scientific method is:

- A) observation and description of a phenomenon.
- B) testing a research question or hypothesis.
- C) generating a hypothesis.
- D) collecting data.

Answer: C

Page Ref: 38

- 41) The type of study that observes a large population to determine factors that may influence nutritional habits and disease trends is called a(n):
- A) case controlled study.
 - B) clinical trial.
 - C) epidemiological study.
 - D) animal study.

Answer: C
Page Ref: 40

- 42) Dr. Sullivan is conducting a clinical trial to determine if vitamin Z can improve test performance of students in an introductory college nutrition course. Dr. Sullivan puts all the students' names in a hat and draws names to determine if they will be placed in the control or the experimental group. The experimental group receives a capsule of vitamin Z and the control group a "sugar pill" that tastes and looks identical to the vitamin Z capsule. Neither Dr. Sullivan nor the participants know who is receiving which treatment. This experiment is best described as:
- A) single-blind, random selection.
 - B) double-blind, placebo controlled.
 - C) single-blind, random selection, placebo controlled.
 - D) double-blind, random selection, placebo controlled.

Answer: D
Page Ref: 40-41

- 43) _____ are strongly accepted principles supported by many hypotheses that have been collectively confirmed through repeated research.
- A) Studies
 - B) Theories
 - C) Placebos
 - D) Trials

Answer: B
Page Ref: 41

True or False Questions

- 44) The earliest discoveries in the field of nutrition focused on nutritional deficiencies.

Answer: TRUE
Page Ref: 4

- 45) In the United States, diseases related to overnutrition (heart disease, stroke, type 2 diabetes) are more common than nutrient deficiency diseases.

Answer: TRUE
Page Ref: 7

- 46) Currently, the leading cause of death in the United States is obesity.

Answer: FALSE
Page Ref: 7

47) Macronutrients are compounds that contain the element nitrogen.

Answer: FALSE

Page Ref: 11

48) A kilocalorie is a measurement of energy.

Answer: TRUE

Page Ref: 12

49) Carbohydrates, fats, and proteins are the only nutrients in foods that provide energy.

Answer: TRUE

Page Ref: 12

50) Alcohol is a nutrient that provides 7 kilocalories per gram.

Answer: FALSE

Page Ref: 12

51) Your total daily caloric intake is 2,310 kcals and 88 grams come from fat. Your percent kcals from fat meets the AMDR.

Answer: TRUE

Page Ref: 13 & 22

52) Cholesterol is synthesized by the body.

Answer: TRUE

Page Ref: 14

53) Fat is an important energy source for muscles during low-intensity exercise.

Answer: TRUE

Page Ref: 14

54) The primary role of protein is to provide energy for the body.

Answer: FALSE

Page Ref: 14

55) Protein is the only macronutrient that contains the element nitrogen.

Answer: TRUE

Page Ref: 14

56) Fat-soluble vitamins are considered nonessential because the human body needs them in relatively small amounts and can synthesize them in the liver.

Answer: FALSE

Page Ref: 15

57) Vitamin A, B, E, and K are considered fat-soluble vitamins.

Answer: FALSE

Page Ref: 15

58) Vitamins contain 4 kilocalories per gram.

Answer: FALSE

Page Ref: 15

59) Because they are needed in relatively smaller quantities, vitamins and minerals are considered micronutrients.

Answer: TRUE

Page Ref: 15

60) Major minerals are more important to the body than trace minerals.

Answer: FALSE

Page Ref: 16-17

61) The Dietary Reference Intakes (DRIs) are dietary standards that should be applied only to healthy individuals.

Answer: TRUE

Page Ref: 18

62) Water is an organic nutrient.

Answer: FALSE

Page Ref: 18

63) The Recommended Dietary Allowances (RDAs) were originally designed to prevent nutrient deficiencies.

Answer: TRUE

Page Ref: 18

64) The UL is the level of nutrient intake we should attempt to consume daily.

Answer: FALSE

Page Ref: 21

65) The Estimated Energy Requirement (EER) is a nutrient standard used to approximate the energy needs of growing infants and children.

Answer: FALSE

Page Ref: 21

66) The AMDR for protein is 15–25%.

Answer: FALSE

Page Ref: 22

Short Answer Questions

67) The measurement unit for the energy derived from food is termed _____.

Answer: kilocalorie

Page Ref: 11

68) _____ describes a multidimensional, lifelong process that includes physical, emotional, and spiritual health.

Answer: Wellness

Page Ref: 6

69) Developed by the Department of Health and Human Services, the _____ agenda encompasses over 400 health promotion and disease prevention objectives for the nation.

Answer: *Healthy People 2010*

Page Ref: 7–8

70) _____ are the chemicals found in foods that are critical to human growth and function.

Answer: Nutrients

Page Ref: 10

71) _____ nutrients must be provided by the diet.

Answer: Essential

Page Ref: 11

72) The primary source of fuel for the body is _____.

Answer: carbohydrate

Page Ref: 12

73) _____ are a classification of nutrients needed in relatively small amounts by the body.

Answer: Micronutrients

Page Ref: 14

74) The smallest unit of a protein is a(n) _____.

Answer: amino acid

Page Ref: 13

75) The water-soluble vitamins include the family of _____ vitamins and vitamin _____.

Answer: B; C

Page Ref: 15

76) Vitamins A, D, E, and K are classified as _____ vitamins.

Answer: fat-soluble

Page Ref: 15

77) Because they do NOT contain the element carbon, minerals and water are _____ nutrients.

Answer: inorganic

Page Ref: 17

78) _____ is a trace mineral that helps to reduce tooth decay.

Answer: Fluoride

Page Ref: 17

79) Trace minerals are needed in amounts less than _____ per day.

Answer: 100 mg

Page Ref: 17

80) The _____ are a group of revised nutritional reference standards established in response to the increased incidence of chronic diseases.

Answer: Dietary Reference Intakes (DRIs)

Page Ref: 19

81) The AMDR for carbohydrate is between _____ and _____ percent.

Answer: 45; 65

Page Ref: 22

82) _____ is when nutritional status is out of balance.

Answer: Malnutrition

Page Ref: 23

83) A(n) _____ is a health professional who has earned a bachelor's degree, has completed extensive nutrition-related course work, and has successfully completed a national dietetics exam.

Answer: Registered Dietitian

Page Ref: 27

84) In the scientific method, the _____ is also called the research question.

Answer: hypothesis
Page Ref: 39

85) A(n) _____ is a fake treatment that has no known physical effect on the subjects in a research study.

Answer: placebo
Page Ref: 41

Matching Questions

Match the following items.

86) DRI
Page Ref: 19

87) EAR
Page Ref: 20

88) RDA
Page Ref: 20

89) AI
Page Ref: 21

90) UL
Page Ref: 21

91) EER
Page Ref: 21

92) AMDR
Page Ref: 21-22

A) Highest intake level of a nutrient thought to be safe

B) Average intake level that meets the need of half of all healthy individuals

C) Average energy intake recommended for energy balance and weight maintenance in adults

D) Average intake level that meets or exceeds the need of 97-98% of healthy individuals

E) Recommended range of caloric intakes for the energy-yielding nutrients

F) When an RDA has yet to be established, this value serves as the recommended adequate intake level

G) An updated set of nutritional reference values that apply to healthy people

86) G
92) E

87) B

88) D

89) F

90) A

91) C

Match the following items.

93) Carbohydrates

Page Ref: 13

94) Lipids

Page Ref: 14

95) Proteins

Page Ref: 14

96) Fat-soluble vitamins

Page Ref: 15

97) Water-soluble vitamins

Page Ref: 15

98) Major minerals

Page Ref: 17

99) Trace minerals

Page Ref: 18

A) Examples include thiamin, folate, and riboflavin

B) Organic micronutrients that require dietary fat for adequate absorption

C) Energy-yielding nutrients that contain the element nitrogen

D) Examples include iron, zinc, and copper

E) Inorganic nutrients needed in quantities greater than 100 milligrams per day

F) Organic, energy-yielding nutrients that are insoluble in water

G) Primary fuel source for our bodies

93) G
99) D

94) F

95) C

96) B

97) A

98) E

Essay Questions

100) Compare and contrast the earliest nutritional discoveries to current trends in nutrition research and health promotion. Why has the focus shifted?

Page Ref: 4-7

101) Define wellness. Discuss how nutrition is related to overall wellness.

Page Ref: 6

102) What is the *Healthy People 2010* initiative. What are the two primary objectives?

Page Ref: 8-10

103) The Dietary Reference Intakes (DRIs) for most nutrients consist of four separate values: Estimated Average Requirement (EAR), Recommended Dietary Allowances (RDA), Adequate Intake (AI), and Tolerable Upper Intake Level (UL). Explain what each of these values represent.

Page Ref: 18-20

104) Compare and contrast the four primary types of dietary intake tools. What is the major limitation to most of these tools?

Page Ref: 22-25

105) List and describe the steps involved in the scientific method.

Page Ref: 38-41

106) List the characteristics of a well-designed research study.

Page Ref: 38-41

Chapter 2 Designing a Healthful Diet

Multiple-Choice Questions

- 1) The four characteristics of a healthful diet are adequacy, balance, moderation, and _____.
A) calories B) color C) value D) variety

Answer: D
Page Ref: 44

- 2) Jack is a college athlete who requires 2,800 kilocalories a day to support his total energy needs. Even though Jack likes many different foods and makes it a point to try new things, he only consumes approximately 1,600 kilocalories a day. Which one of the characteristics of a healthy diet is Jack missing?
A) adequacy B) balance C) moderation D) variety

Answer: A
Page Ref: 44

- 3) Including fiber in your diet is beneficial to your GI tract, but consuming excess amounts of fiber can result in the loss of nutrients. This statement is an example of which of the factors to consider in planning diets?
A) adequacy B) calorie control
C) variety D) moderation

Answer: D
Page Ref: 44

- 4) _____ refers to eating the right proportion of foods.
A) Restriction B) Balance C) Moderation D) Variety

Answer: B
Page Ref: 46

- 5) Suzie is a stay-at-home mom who generally prepares the majority of meals for her household. Even though she always prepares meals that offer enough calories and nutrients for her family of four, she tends to make the same meals again and again. Which one of the characteristics of a healthy diet is Suzie not incorporating into her meal planning?
A) adequacy B) balance C) moderation D) variety

Answer: D
Page Ref: 46