

chapter 1

Indicate whether the statement is true or false.

1. All humans share 99.9% of the human genome.

- a. True
- b. False

2. A good diet alone will prevent an individual from getting heart disease.

- a. True
- b. False

3. Canada's guidelines for healthy eating include information on diet and physical activity.

- a. True
- b. False

4. Cultural traditions regarding food are static and inflexible.

- a. True
- b. False

5. Once a new finding is published in a scientific journal, it is considered preliminary.

- a. True
- b. False

6. Alcohol is a nutrient that yields energy for the body.

- a. True
- b. False

7. Malnutrition includes deficiencies, imbalances, and excesses of nutrients. Any of these factors can be harmful over time.

- a. True
- b. False

8. Enriched and fortified foods are not necessarily more nutritious than whole basic foods.

- a. True
- b. False

9. When a hospital client has to be fed through a vein, the duration should be as short as possible and real food should be reintroduced as early as possible.

- a. True
- b. False

10. A basic premise of dietary guidelines is that food should provide nutrients over supplements whenever possible.

- a. True
- b. False

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Indicate the answer choice that best completes the statement or answers the question.

11. Which of the following media is the most credible source of nutrition information?

- a. newspaper articles
- b. health magazines
- c. scientific journals
- d. blogs

12. You see a new finding about nutrition reported in your local newspaper. What is your most prudent response to information from this source?

- a. You decide that the information is factual.
- b. You wait until there are confirmed results to apply the finding.
- c. You feel confident about changing your diet accordingly.
- d. You attribute it to media sensationalism.

13. What is the name commonly given to an Internet story that gains strength of conviction solely on the basis of repetition?

- a. advertorial
- b. anecdotal evidence
- c. urban legend
- d. infomercial

14. Which of the following statements best defines an “essential” nutrient?

- a. It is necessary for good health and proper functioning of the body.
- b. It can be obtained only from the diet.
- c. It can be manufactured by the body from raw materials.
- d. It can be manufactured by the body itself.

15. Which of the following nutrients yields energy and also provides materials that form structures and working parts of body tissues?

- a. proteins
- b. vitamins
- c. fats
- d. proteins

16. What daily nutrition supplement does the Canadian food guide recommend for women of childbearing age?

- a. folic acid
- b. vitamin D
- c. vitamin C
- d. calcium

17. Which of the following nutrients is considered organic?

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- a. minerals
- b. carbohydrate
- c. water
- d. alcohol

18. Which of the following terms is used to describe a product that has been isolated from food, is often sold in pill form, and is believed to have medicinal effects?

- a. nutraceutical
- b. nonnutrient
- c. partitioned
- d. phytochemical

19. What factor is driving food choice when an individual selects a food because the item is consumed by someone they admire?

- a. values or beliefs
- b. positive associations
- c. social pressure
- d. advertising

20. A compound in cranberries may help prevent urinary tract infections by preventing certain bacteria from clinging to the urinary tract. What is the general term for this type of compound?

- a. functional food
- b. phytochemical
- c. natural food
- d. nutraceutical

21. What is the term given to the characteristic that suggests a monotonous diet may deliver large amounts of toxins or contaminants to the body?

- a. adequacy
- b. variety
- c. moderation
- d. balance

22. The integration of nutrition, genomic science, and molecular biology has launched a new area of study. What is this area of study called?

- a. nutrition genetics
- b. nutritional genomics
- c. nutritional molecular science
- d. nutritional science

23. A nutrition claim that insists medical doctors want to keep people ill so that they continue to make money is

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an example of which earmark of nutrition quackery?

- a. logic without proof
- b. authority not cited
- c. unpublished studies
- d. persecution claims

24. What type of research looks for correlations between dietary habits and disease incidence in a population?

- a. epidemiological study
- b. intervention study
- c. case study
- d. laboratory study

25. How many Calories are there in 1 gram of carbohydrate or protein?

- a. 2
- b. 4
- c. 7
- d. 9

26. In which type of study do the investigators not manipulate the study variables of interest but instead monitor them over time?

- a. cohort study
- b. case-control study
- c. epidemiological study
- d. community health survey

27. What is something consumers are looking for in today's meal preparation that takes place in their own kitchen?

- a. meatless meals
- b. preparation time that takes no longer than 60 minutes
- c. recipes that call for only 4 to 6 ingredients
- d. strict use of organic foods

28. Three ounces of beef stew offers about the same amount of iron as three ounces of water-packed tuna, but the beef contains over 300 Calories while the tuna contains about 100 Calories. What is the term for this difference?

- a. balance
- b. moderation
- c. dietary variety
- d. nutrient density

29. Which of the following is a benefit of physical activity on the body?

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- a. increased lean body tissue
 - b. increased risk of cardiovascular diseases
 - c. decreased bone density
 - d. slower wound healing
30. Which of the following statements best defines “enriched” as it is applied to a food product?
- a. The product is low in Calories and high in nutrients.
 - b. The product is more expensive to purchase.
 - c. The product is superior to similar products.
 - d. The product could be either nutritious or not nutritious.
31. Which of the following characteristics defines a legitimate and qualified nutrition expert?
- a. completion of an approved internship or the equivalent
 - b. graduation from a college after completing a program of dietetics
 - c. using the term nutritionist after the individual’s name
 - d. graduation from a correspondence program with an internship
32. Which one of the following factors primarily drives food choices?
- a. genetics
 - b. convenience
 - c. nutritional value
 - d. climate of the country
33. What section of a research article defines key terms and describes study procedures?
- a. abstract
 - b. introduction
 - c. methodology
 - d. evidence review
34. How many Calories are there in a food that contains 20 grams of carbohydrate, 8 grams protein, and 5 grams of fat?
- a. 132 Calories
 - b. 157 Calories
 - c. 231 Calories
 - d. 297 Calories
35. Which of the following is a type of anthropometric information that may be obtained as part of an individual’s nutritional assessment?
- a. glucose level
 - b. food intake
 - c. body height

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d. health history

36. Which of the following units do food scientists use to measure food energy?

- a. units of mass
- b. kilocalories
- c. kilograms
- d. grams

37. Which of the following foods offers the most nutrients per Calorie?

- a. diced carrot
- b. ice cream
- c. pork sausage
- d. black coffee

38. A nutritious diet should provide enough of each essential nutrient, enough fibre, and enough energy. What is the name for this principle of diet planning?

- a. moderation
- b. adequacy
- c. variety
- d. balance

39. A certain amount of fibre in foods contributes to the health of the digestive tract, but too much fibre leads to nutrient losses. What is the term for the characteristic of diet planning that takes this fact into account?

- a. adequacy
- b. Calorie control
- c. moderation
- d. balance

40. What is the most accurate term used to describe a person who is strict about including only foods from plant sources in his or her diet?

- a. vegetarian
- b. carnivore
- c. omnivore
- d. vegan

41. Which of the following functions is the responsibility of provincial dietetic regulatory bodies?

- a. accrediting correspondence schools in dietetics
- b. protecting the public from unsafe dietetic practice
- c. randomly monitoring the competence of members
- d. referring complaints about dietetic members to Dietitians of Canada

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42. Which of the following statements most accurately describes items in the supermarket that are advertised as *natural foods*?

- a. The food is made from parts of whole foods.
- b. The food is used frequently in most households.
- c. The food is implied to be wholesome, however this is not a legal term.
- d. The food has had nutrients added to improve the nutritional profile.

43. When given to severely ill people unable to eat ordinary food, what are elemental diets designed to do?

- a. support life
- b. enable people to thrive
- c. support optimal growth
- d. enhance digestive tract health

44. How many Calories does 1 gram of alcohol provide?

- a. 2
- b. 4
- c. 7
- d. 9

45. Which of the following characteristics of a claim about nutrition would lead you to doubt its validity?

- a. It appears in a peer-reviewed scientific journal.
- b. It is being made by a registered dietitian.
- c. The evidence supporting the claim is in the form of laboratory tests.
- d. It is written by an individual with certification from a diploma mill.

46. How many classes of nutrients are there?

- a. 2
- b. 4
- c. 6
- d. 8

47. What type of nutrition research design shows the effects of treatments?

- a. randomized controlled trials
- b. epidemiological studies
- c. blind experiments
- d. case studies

48. Which of the following nutrients is the most energy-rich?

- a. fat
- b. protein
- c. minerals

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d. carbohydrate

49. In Italy, pasta is an example of what kind of food?

- a. fortified
- b. processed
- c. natural
- d. staple

50. Which of the following characteristics applies to alcohol?

- a. It contributes no Calories.
- b. It interferes with repair of body tissues.
- c. It is a nutrient.
- d. It is non-toxic to the body.

51. Which of the following organizations accredits university undergraduate and dietetic internship programs that qualify dietitians to practise?

- a. International Academy of Nutritional Consultants
- b. Canadian Society for Clinical Nutrition
- c. Canadian Association of Nutrition and Dietary Consultants
- d. Dietitians of Canada

52. Which of the following conditions is the most responsive to nutrition?

- a. diabetes
- b. iron deficiency anemia
- c. sickle cell disease
- d. heart disease

53. Which of the following nutrients is energy-yielding?

- a. carbohydrates
- b. vitamins
- c. water
- d. minerals

54. What daily nutrition supplement does the Canadian food guide recommend for men and women over the age of 50 years?

- a. folic acid
- b. vitamin D
- c. calcium
- d. iron

55. What is the name for the study of environmental influences on genetic expression?

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- a. epigenetics
- b. genetic counselling
- c. nutritional nucleic acid pool
- d. genetic metabolics

56. Sugar, butter, and corn oil provide few nutrients with many Calories. What is the name for these types of foods?

- a. partitioned
- b. enriched
- c. processed
- d. natural

57. What class of compound gives hot peppers their burning taste?

- a. nonnutrient
- b. nutrient
- c. supplement
- d. toxin

58. Describe how you would determine whether an Internet site offers reliable nutrition information.

59. Why does the variety of foods available to us today make it more difficult, rather than easier, to plan nutritious diets?

60. Describe the potential benefits of physical activity.

61. Identify and briefly describe the five characteristics of a nutritious diet.

62. Explain the concept of nutrient density and give an example.

63. What is meant by the term “essential nutrient”?

64. Describe why people should not make changes in their diets based on the results of a single research study.

65. What are the functions of food, besides providing nutrients?

66. Identify and explain factors that drive food choices.

67. Which of the following meals provides the most overall Calories? Show your calculations.

Meal A: Meal B:

Hamburger Spaghetti with Tomato Sauce

30 grams carbohydrate 45 grams carbohydrate

19 grams fat 15 grams fat

Name _____ Class _____ Date: _____

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22 grams protein 10 grams protein

68. Provide specific examples of how vitamins and minerals serve as regulators in the body.

Name _____ Class _____ Date _____
: _____ : _____ e: _____

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Answer Key

1. True
2. False
3. True
4. False
5. True
6. False
7. True
8. True
9. True
10. True
11. c
12. b
13. c
14. b
15. d
16. a
17. b
18. a
19. b
20. b
21. b
22. b
23. d
24. a

Name _____ Class _____ Date _____

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25. b

26. a

27. c

28. d

29. a

30. d

31. a

32. b

33. c

34. b

35. c

36. b

37. a

38. b

39. c

40. d

41. b

42. c

43. a

44. c

45. d

46. c

47. a

48. a

49. d

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50. b

51. d

52. b

53. a

54. b

55. a

56. a

57. a

58. A person should ask him- or herself the following questions:

- 1 Who is responsible for the site?
- 2 Do the names and credentials of information providers appear? Is an editorial board identified?
- 3 Are links with other reliable information sites provided?
- 4 Is the site updated regularly?
- 5 Is the site selling a product or service?
- 6 Does the site charge a fee to gain access to it?

59. The number of foods supplied by the food industry today is astounding. Many foods are processed mixtures of basic foods, and this abundance of products makes it more difficult to plan a nutritious diet. To select well among foods, you need to know more than the product names—you need to know the foods' inner qualities and how to combine foods into a nutritious diet.

60. Reduced risk of cardiovascular disease; increased cardiovascular endurance; increased muscle strength and endurance; increased flexibility; reduced risk of type 2 diabetes; reduced risk of some types of cancer (especially colon and breast); improved mental outlook and lessened likelihood of depression; improved mental functioning; feeling of vigour; feeling of belonging—the companionship of sports; strong self-image and belief in one's abilities; reduced body fatness, increased lean tissue; a more youthful appearance, healthy skin, and improved muscle tone; greater bone density and lessened risk of adult bone loss in later life; increased independence in the elderly; sound, beneficial sleep; faster wound healing; lessening or elimination of menstrual pain; improved resistance to infection.

61. 1 Adequacy: the dietary characteristic of providing all of the essential nutrients, fibre, and energy in amounts sufficient to maintain health and body weight.

2 Balance: the dietary characteristic of providing foods of a number of types in proportion to each other such that foods rich in some nutrients do not replace foods that are rich in other nutrients. Also called proportionality.

3 Calorie control: control of energy intake; a feature of a sound diet plan.

4 Moderation: the dietary characteristic of providing constituents within set limits, not to excess.

5 Variety: the dietary characteristic of providing a wide selection of foods—the opposite of monotony.

62. Nutrient density is a measure of nutrients provided per Calorie of food. In other words, a food that is rich in nutrients relative to its energy contents is considered nutrient dense. For example, milk is more nutrient dense

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than ice cream.

63. The body cannot make these nutrients for itself. You must consume these nutrients in your diet or you will develop deficiencies. Essential nutrients are found in all six classes of nutrients.

64. Nutrition is a relatively new science, and because it is constantly changing, scientific findings are often inclusive, contradictory, or subject to conflicting interpretations. Most research projects result in new questions and not final answers.

65. Food conveys emotional satisfaction, and hormonal and digestive tract stimuli that contribute to health. Food also contains nonnutrients such as phytochemicals that give them their tastes, aromas, colours, and other characteristics.

66. Factors include: advertising; availability of food; economy; emotional comfort; habit; personal preference and genetic inheritance; positive associations; region of the country; social pressure; values or beliefs; weight; nutritional value.

67. Meal A

Meal A: Meal B:

30 g carbohydrate $\times$ 4 Cal/g = 120 Calories 45 g carbohydrate $\times$ 4 Cal/g = 180 Calories

19 g fat $\times$ 9 Cal/g = 171 Calories 15 g fat $\times$ 9 Cal/g = 135 Calories

22 g protein $\times$ 4 Cal/g = 88 Calories 10 g protein $\times$ 4 Cal/g = 40 Calories

Total Calories = 379 Calories Total Calories = 355 Calories

68. Vitamins and minerals assist the body in all processes: digesting food; moving muscles; disposing of wastes; growing new tissues; healing wounds; obtaining energy from carbohydrate, fat, and protein; and participating in every other process necessary to maintain life.