

Chapter 1–Food Choices and Human Health

MULTIPLE CHOICE

1. Which of the following conditions is the most nutrition responsive?

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

ANS: B PTS: 1 REF: Page 3

2. Which of the following facts do you need to know in order to determine whether a food supports good health?

a.	how popular it is among consumers
b.	the food' s inner qualities
c.	how it relates to an illness
d.	the role it plays in the body

ANS: B PTS: 1 REF: Page 8

3. How many classes of nutrients are there?

a.	two
b.	four
c.	six
d.	eight

ANS: C PTS: 1 REF: Page 5

4. Which of the following is the most energy-rich nutrient?

a.	fat
b.	protein
c.	water
d.	carbohydrate

ANS: A PTS: 1 REF: Page 6

5. Which of the following is an organic nutrient?

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

ANS: B PTS: 1 REF: Page 5

6. Which of the following is an energy-yielding nutrient?

a.	proteins
b.	vitamins
c.	water
d.	minerals

ANS: A PTS: 1 REF: Page 5-6

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

a.	units of weight
b.	calories
c.	kilograms
d.	grams

ANS: B PTS: 1 REF: Page 5

8. Alcohol has which of the following characteristics?

a.	It contributes no calories.
b.	It interferes with repair of body tissues.
c.	It is a nutrient.
d.	It is not toxic to the body.

ANS: B PTS: 1 REF: Page 6

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

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

ANS: D PTS: 1 REF: Page 5

10. One gram of alcohol is equal to how many calories?

a.	two
b.	four
c.	seven
d.	nine

ANS: C PTS: 1 REF: Page 6

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

a.	It is necessary for good health and
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16. Which of the following types of nutrition research designs shows the effects of treatments?

a.	randomized controlled trials (RCT)
b.	case study
c.	laboratory study
d.	blind experiment

ANS: C PTS: 1 REF: Page 12-13

17. 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

ANS: C PTS: 1 REF: Page 9

18. 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

ANS: A PTS: 1 REF: Page 7

19. According to data from a national survey, on any given day almost half of our population does **NOT** consume enough of one particular category of food. What food category is that?

a.	fruits and vegetables
b.	milk and alternatives
c.	meat
d.	grains

ANS: A PTS: 1 REF: Page 13

20. What is the name for foods that have been subjected to any modification, such as addition of additives, milling, or cooking?

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

ANS: C PTS: 1 REF: Page 7

21. In Southeast Asia, rice is an example of what kind of food?

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

ANS: C PTS: 1 REF: Page 7

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

a.	support life
b.	enable people to thrive
c.	support optimal growth
d.	support health

ANS: A PTS: 1 REF: Page 6

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

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

ANS: B PTS: 1 REF: Page 8

24. How many calories are there in a food that contains 20 grams of carbohydrate, 8 grams protein, and 5 grams of fat?

a.	157 calories
b.	232 calories
c.	258 calories
d.	378 calories

ANS: A PTS: 1 REF: Page 6

25. A food provides 8 grams of fat and 300 total calories. What is the percentage of calories as fat in this product?

a.	24%
b.	30%
c.	48%
d.	52%

ANS: A PTS: 1 REF: Page 6

26. Which of the following foods offers the most nutrients per calorie?

a.	carrots
b.	potatoes
c.	green peas
d.	corn

ANS: A PTS: 1 REF: Page 18

27. There is a compound in cranberries that may help prevent urinary tract infections by preventing some 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

ANS: B PTS: 1 REF: Page 6

28. Your best friend tells you that she has started taking vitamin supplements to give her energy. How would you respond to her statement?

a.	Vitamins are organic and are a great energy source.
b.	When vitamins are combined with carbohydrates, they provide an excellent energy source.
c.	Vitamins do NOT yield usable energy.
d.	Vitamins provide energy because they undergo oxidation.

ANS: C PTS: 1 REF: Page 5

29. Most foods that are high in calcium are poor sources of iron. What is the term given to the characteristic of a nutritious diet that provides healthy amounts of both these nutrients?

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

ANS: D PTS: 1 REF: Page 9

30. Which of the following statements is **NOT** true of a monotonous diet?

a.	A monotonous diet leads to greater eating pleasure.
b.	A monotonous diet may lack some less well-known nutrients and some nonnutrient food components that could be important to health.
c.	A monotonous diet may deliver large amounts of unwanted toxins or contaminants.
d.	A monotonous diet may lead to decreased appetite and severe weight loss.

ANS: B PTS: 1 REF: Page 9

31. 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

ANS: D PTS: 1 REF: Page 18-19

32. 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.

ANS: B PTS: 1 REF: Page 13

33. 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.

ANS: D PTS: 1 REF: Page 7

34. How many calories are there in a gram of carbohydrate or protein?

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

ANS: B PTS: 1 REF: Page 6

35. Which of the following terms was coined as a name for foods that might lend protection against chronic diseases by way of the nutrients or nonnutrients they contain?

a.	organic foods
b.	natural foods
c.	basic foods
d.	functional foods

ANS: D PTS: 1 REF: Page 7

36. An important general dietary guideline is to limit calorie intake and obtain more and varied selections of which of the following food groups?

a.	fruits and vegetables
b.	baked goods
c.	processed meat products
d.	alcohol

ANS: A PTS: 1 REF: Page 15-17

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

a.	It appears in a scientific journal and is written by a professional dietitian.
b.	It is being made by a dietitian who is paid to make claims.
c.	The evidence used to support the claim is in the form of laboratory tests.
d.	It is written by a dietist.

ANS: D PTS: 1 REF: Page 21-24

38. Which of the following is characteristic of 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

ANS: A PTS: 1 REF: Page 26

39. Which of the following organizations confers the credential "R.D.," which is displayed after a dietitian's name?

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

ANS: D PTS: 1 REF: Page 23

40. 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

ANS: C PTS: 1 REF: Page 21

41. What is the recommended maximum percentage of total calories from fats for Canadian adults?

a.	5%
b.	15%
c.	25%
d.	35%

ANS: B PTS: 1 REF: Page 9

42. 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

ANS: B PTS: 1 REF: Page 4

43. Suzanne is a person who includes only foods from plant sources in her diet. What is the term used to describe this dietary practice?

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

ANS: B PTS: 1 REF: Page 10

44. 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.	function foods
c.	partitioned
d.	organic

ANS: A PTS: 1 REF: Page 7

45. Which one of the following factors primarily drives food choices?

a.	genetics
b.	lifestyle
c.	nutritional value
d.	climate of the country

ANS: C PTS: 1 REF: Page 10

46. What is the name given to a study in which the investigators do 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

ANS: A PTS: 1 REF: Page 12

47. Which of the following is a function of provincial regulatory bodies?

a.	accrediting correspondence schools in dietetics
b.	protecting the use of regulated title designation and initials
c.	randomly monitoring the competence of members

d.	communicating with the public via the Internet only
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ANS: B PTS: 1 REF: Page 23

48. About how many Canadians are physically inactive?

a.	23%
b.	47%
c.	52%
d.	71%

ANS: C PTS: 1 REF: Page 17

49. What is the name for the study of how a person's genes interact with nutrients?

a.	genetic counselling
b.	nutritional genomics
c.	nutritional nucleic acid pool
d.	genetic metabolomics

ANS: B PTS: 1 REF: Page 4

TRUE/FALSE

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

ANS: T PTS: 1 REF: Page 2

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

ANS: T PTS: 1 REF: Page 13

3. 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.

ANS: T PTS: 1 REF: Page 6

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

ANS: T PTS: 1 REF: Page 7

5. If you live to be 65 or older, you will have consumed more than 70,000 meals.

ANS: T PTS: 1 REF: Page 2

6. Cultural traditions regarding food are static and inflexible.

ANS: F PTS: 1 REF: Page 10

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

ANS: T PTS: 1 REF: Page 4

8. Much of the nutrition information found on the Internet is fiction.

ANS: T PTS: 1 REF: Page 14

9. Energy intakes should not exceed the body's energy needs.

ANS: T PTS: 1 REF: Page 9

10. When trying to detect fake credentials for individuals calling themselves dietitians, one must recognize that a university degree is almost invariably legitimate in Canada.

ANS: T PTS: 1 REF: Page 24-26

SHORT ANSWER

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

ANS:

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.

PTS: 1

REF: Page 7-8

2. Describe why people should not make changes in their diet based on results of a single research study.

ANS:

Nutrition is a relatively new science, and because it is constantly changing, scientific findings are often inclusive, contradictory, or subject to conflicting interpretations.

PTS: 1 REF: Page 11-13

3. Identify the functions of food, in addition to providing nutrients.

ANS:

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

PTS: 1 REF: Page 6-7

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

ANS:

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.

PTS: 1 REF: Page 8-10

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

ANS:

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. Example: milk is more nutrient dense than ice cream.

PTS: 1 REF: Page 17-19

6. Describe how you would determine if an Internet site offers reliable nutrition information.

ANS:

A person should ask himself/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?

PTS: 1 REF: Page 22-24

7. Describe the potential benefits of physical activity.

ANS:

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.

PTS: 1 REF: Page 17

8. Identify factors that drive food choices.

ANS:

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.

PTS: 1 REF: Page 10

9. Describe the characteristics of scientific research.

ANS:

Research scientists follow the scientific method. This method includes: observation and question; hypothesis and prediction; experiment; results and interpretations; and, if the hypothesis is supported, a theory. If the hypothesis is not supported, new observations and questions.

PTS: 1 REF: Page 11-13

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

ANS:

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.

PTS: 1 REF: Page 5

11. Is it possible to take dietary supplements in place of food? Why, or why not?

ANS:

Supplements of nutrients still lack something that foods provide. The digestive tract changes constantly in response to the foods it receives. Food offers both physical and emotional comfort.

PTS: 1 REF: Page 6