

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) Which statement is FALSE concerning the field of nutrition? 1) _____
A) Nutrition is an ancient science that dates back to the fourteenth century.
B) Nutrition encompasses how we consume, digest, absorb, and store food.
C) Nutrition is the study of how food nourishes the body.
D) Nutrition involves studying the factors that influence eating patterns.
- 2) Which of the following chronic diseases is NOT strongly associated with dietary choices? 2) _____
A) heart disease
B) type 2 diabetes
C) Alzheimer's disease
D) obesity
- 3) How many classes of nutrients are there? 3) _____
A) four
B) three
C) six
D) eight
- 4) Which of the following nutrients are inorganic? 4) _____
A) vitamins
B) fats
C) carbohydrates
D) minerals
- 5) What is the primary source of fuel for the brain? 5) _____
A) carbohydrates
B) fats
C) proteins
D) vitamins
- 6) Of the following nutrients, which contains nitrogen? 6) _____
A) water
B) lipids
C) proteins
D) carbohydrates
- 7) Which of the following is an example of an inorganic nutrient? 7) _____
A) dietary fiber (carbohydrate)
B) vitamin A (vitamin)
C) stearic acid (fat)
D) calcium (mineral)
- 8) 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? 8) _____
A) 582 kilocalories
B) 1,007 kilocalories
C) 123 kilocalories
D) 152 kilocalories
- 9) For dinner, Carol consumes 250 grams of carbohydrate, 50 grams of protein, and 30 grams of fat. In addition, Carol decides that she wants a glass of wine with her meal. If she drinks one glass of wine containing 10 grams of alcohol, how many total kilocalories does she consume in this meal? 9) _____
A) 2,820 kilocalories
B) 1,540 kilocalories
C) 1,806 kilocalories
D) 340 kilocalories
- 10) Which of the following are examples of carbohydrate-rich foods? 10) _____
A) beef and pork
B) wheat and lentils
C) butter and corn oil
D) bacon and eggs

- 11) Which dietary standard, expressed as percentages of total energy, defines the recommended intake range for the macronutrients? 11) _____
 A) Estimated Average Requirement (EAR)
 B) Tolerable Upper Intake Level (UL)
 C) Acceptable Macronutrient Distribution Range (AMDR)
 D) Recommended Dietary Allowance (RDA)
- 12) Which of the following nutrients is organic? 12) _____
 A) iron B) water C) protein D) sodium
- 13) Lauren's friend has recommended that she take a vitamin C supplement before undergoing oral surgery. Lauren is concerned about consuming too much of the supplement. Which of the following nutrient standards would assist Lauren in determining the highest amount of the supplement that would be safe for her to consume? 13) _____
 A) Recommended Dietary Allowance (RDA)
 B) Estimated Average Requirement (EAR)
 C) Tolerable Upper Intake Level (UL)
 D) Acceptable Macronutrient Distribution Range (AMDR)
- 14) Which of the following nutrients is the MOST energy dense? 14) _____
 A) vitamins B) carbohydrate C) fat D) protein
- 15) Which of the following BEST describes minerals? 15) _____
 A) inorganic micronutrients found in a variety of foods
 B) nutrients that are needed in large amounts by the body
 C) micronutrients that are easily destroyed by heat and light
 D) micronutrients that are broken down easily during digestion
- 16) An important source of energy for muscles during times of rest and low-intensity exercise is 16) _____
 A) water. B) vitamins. C) fat. D) protein.
- 17) The building blocks of proteins are called 17) _____
 A) fatty acids. B) amino acids.
 C) nitrogen fragments. D) saccharides.
- 18) Which of the following is NOT a primary function of dietary protein? 18) _____
 A) serving as a primary source of energy for the body
 B) repairing damaged structures
 C) building new cells and tissues
 D) regulating metabolism and fluid balance
- 19) Proteins are NOT found in 19) _____
 A) water. B) meats, fish, and poultry.
 C) seeds, nuts, and legumes. D) dairy products.
- 20) What are the two groups that vitamins are classified into? 20) _____
 A) macrosoluble and microsoluble B) fat-soluble and water-soluble
 C) nonnutritive and nutritive D) trace and major

- 21) Vitamin C and the B vitamins are termed _____
 A) nonessential vitamins. B) fat-soluble vitamins.
 C) trace vitamins. D) water-soluble vitamins.
- 22) Which of the following is FALSE? _____
 A) Fats are an important energy source for our bodies at rest and during low-intensity exercise.
 B) Fats are composed of carbon, hydrogen, and oxygen.
 C) Fats yield more Calories per gram than carbohydrate or protein.
 D) Fats are soluble in water.
- 23) Which of the following describes the vitamins A, D, E, and K? _____
 A) soluble in water B) not stored to any extent in the body
 C) potentially toxic D) excreted via the urine
- 24) Inorganic nutrients that are NOT broken down by the human body or destroyed by heat or light are called _____
 A) vitamins. B) fats. C) minerals. D) proteins.
- 25) Overconsumption of which nutrient has the greatest potential for toxicity? _____
 A) vitamin C B) vitamin D C) niacin D) thiamin
- 26) What is the standard used to estimate the daily nutrient needs of half of all healthy individuals? _____
 A) Tolerable Upper Intake Level (UI) B) Adequate Intake (AI)
 C) Estimated Average Requirement (EAR) D) Recommended Dietary Allowance (RDA)
- 27) Which of the following is NOT a function of water in the body? _____
 A) helps to excrete waste products
 B) helps to transport nutrients and oxygen
 C) helps to regulate nervous impulses and muscle contraction
 D) provides a source of energy to work and play
- 28) According to the Acceptable Macronutrient Distribution Range (AMDR), up to what percentage of your daily Calories should be provided by carbohydrates? _____
 A) 65% B) 75% C) 70% D) 35%
- 29) The highest average amount of a nutrient that can be consumed without a risk of adverse health effects to almost all individuals in a particular age and gender group is called the _____
 A) Acceptable Macronutrient Distribution Range (AMDR).
 B) Recommended Daily Allowance (RDA).
 C) Tolerable Upper Intake Level (UL).
 D) Adequate Intake (AI).
- 30) What is the leading federal agency in the United States that protects human health and safety? _____
 A) United States Department of Agriculture (USDA)
 B) National Institutes of Health (NIH)
 C) American Dietetic Association (ADA)
 D) Centers for Disease Control and Prevention (CDC)

- 40) What term is commonly used to describe foods that are grown without the use of synthetic pesticides? 40) _____
 A) inorganic B) genetically modified organism (GMO)
 C) organic D) vegetarian
- 41) The primary source of fuel for the body is 41) _____
 A) proteins. B) vitamins and minerals.
 C) fats and oils. D) carbohydrates.
- 42) Amino acids are the smallest unit of a 42) _____
 A) protein. B) vitamin. C) carbohydrate. D) lipid.
- 43) In the United States and Canada, what set of standards defines the recommended intake values for various nutrients for healthy people? 43) _____
 A) Tolerable Upper Intake Level (UL)
 B) Dietary Reference Intakes (DRIs)
 C) Acceptable Macronutrient Distribution Range (AMDR)
 D) Estimated Average Requirement (EAR)
- 44) What is the term for an imitation treatment that has no known physical effect or therapeutic value on the subjects in a research study? 44) _____
 A) theory B) double-blind trial
 C) single-blind trial D) placebo
- 45) What is another name for a study of a particular disease in a large population? 45) _____
 A) a double-blind study B) a model study
 C) a single-blind study D) an observational study
- 46) A hypothesis or group of related hypotheses that have been confirmed through repeated scientific experiments is known as a(n) 46) _____
 A) theory. B) fact. C) experiment. D) phenomenon.
- 47) What trend has been shown in research studies funded by pharmaceutical companies? 47) _____
 A) bias towards reporting positive results of drug being studied
 B) research journals rejecting publication of such studies
 C) over-reporting of a drug's side effects
 D) bias towards showing ineffectiveness of competing products
- 48) Which of the following indicates that a nutrition website may not be a reliable source of information? 48) _____
 A) list of registered dietitians who contribute to the website
 B) website address with a ".com" ending
 C) website address with a ".gov" ending
 D) recently updated website
- 49) The American Society for Nutrition (ASN) and other similar professional nutrition organizations 49) _____
 A) publish reliable nutrition research studies.
 B) set the Dietary Reference Intakes (DRIs).
 C) sponsor the National Health and Nutrition Examination Survey (NHANES).
 D) lobby the government on behalf of pharmaceutical companies.

- 50) One of the earliest developments in the field of nutrition linking nutritional deficiency to illness was the discovery that eating citrus fruits prevents _____
 A) strokes. B) cancer. C) scurvy. D) pellagra.
- 51) Which of the following is the primary link between poor nutrition and higher mortality rates? _____
 A) obesity B) Alzheimer's disease
 C) cancer D) iron-deficiency anemia
- 52) A research study funded by a company that stands to benefit from a positive assessment is an example of a _____
 A) placebo effect. B) conflict of interest.
 C) single blind. D) double blind.
- 53) A blogger has written a post about the benefits of an artificial sweetener for weight loss. Which of the following would be the best evidence to support these claims? _____
 A) testimonials from people who have used the sweetener
 B) conclusions from one scientific study
 C) conclusions from a research study funded by the manufacturer of the sweetener
 D) research published in a peer-reviewed journal
- 54) Which of the following is an example of disease that is directly caused by a nutritional deficiency? _____
 A) cancer B) type 2 diabetes C) pellagra D) heart disease
- 55) Prevalent among U.S. Southerners during the early 1900s, pellagra was first thought to be an infectious disease. Today we know that it is caused by a deficiency of _____
 A) vitamin A. B) niacin. C) protein. D) vitamin C.
- 56) Joan's dinner contains 210 grams of carbohydrate, 60 grams of protein, and 52 grams of fat. What percent of kilocalories in this meal comes from carbohydrate? _____
 A) 22% B) 54% C) 35% D) 25%
- 57) A slice of pumpkin bread contains 5 grams of fat, 40 grams of carbohydrate, and 5 grams of protein. What percent of the bread's Calories are from fat? _____
 A) 20% B) 75% C) 10% D) 40%

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

- 58) The earliest discoveries in the field of nutrition focused on nutritional deficiencies and illness. _____
- 59) "Wellness" is a multidimensional process that includes one's physical, emotional, social, occupational, and spiritual health. _____
- 60) Cryogenics is a new area of research that seeks to uncover the links between our genes, our environment, and our diet. _____
- 61) Macronutrients are nutrients that contain inorganic components. _____
- 62) Vitamins provide 4 kilocalories per gram. _____

- 63) Because water does not provide any Calories to the body, scientists do not consider it a nutrient. 63) _____
- 64) A beverage that contains 20 grams of alcohol mixed with a diet soda has approximately 140 kilocalories. 64) _____
- 65) The macronutrients include carbohydrates, lipids, and proteins. 65) _____
- 66) Protein's primary role is to provide energy for the body. 66) _____
- 67) Poor nutrition is strongly associated with three chronic diseases that fall within the group of top ten causes of death in the United States. 67) _____
- 68) Minerals maintain their chemical structure and are not broken down during digestion. 68) _____
- 69) Because they are needed in relatively large quantities, vitamins and minerals are considered macronutrients. 69) _____
- 70) The Dietary Reference Intakes (DRIs) are dietary standards that should be applied only to healthy individuals. 70) _____
- 71) A double-blind experiment is one in which neither the researchers nor participants know which group is assigned to which treatment. 71) _____
- 72) The term nutritionist has no precise definition or laws regulating it. 72) _____
- 73) In the second half of the twentieth century, nutrition researchers failed to find a link between nutrition and the development of chronic diseases. 73) _____
- 74) Nutrigenomics is an ancient specialty area of nutritional research. 74) _____
- 75) For an experiment to be consistent with the principles of the scientific method, it must be repeatable. 75) _____
- 76) The energy derived from food is expressed in units called kilocalories. 76) _____
- 77) A placebo is the misrepresentation of a product, program, or service for financial gain. 77) _____
- 78) The National Institutes of Health (NIH) plays a limited role in researching nutrition-related issues. 78) _____
- 79) A registered dietitian is a health professional who has earned at least a bachelor's degree, has completed supervised clinical training, and has successfully completed a national dietetics exam. 79) _____

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

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

- 81) List the primary classes of nutrients. For each class of nutrients, note whether it is organic or inorganic and how many kilocalories per gram it provides, if any.
- 82) Nutrition professionals debate whether or not consumers should be advised to stop eating "junk food" and other "bad" foods. Summarize the arguments on both sides of the debate.
- 83) Describe how nutrition and physical activity influence wellness.
- 84) What are the four goals of the Healthy People Plan 2020? What specific nutrition and physical activity goals are included?

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 85) The field of nutrigenomics has the potential to improve human health by _____
 A) identifying foods that can regulate specific genes.
 B) expanding the human genome 100-fold.
 C) creating new foods with biologically active ingredients.
 D) altering a diseased individual's DNA makeup.
- 86) Which of the following may one day develop personalized diets tailored to a specific genetic makeup? _____
 A) microbiomics
 B) cryogenics
 C) nutrigenomics
 D) genetic engineering
- 87) Which of the following statements is TRUE about the consumption of foods containing phytochemicals? _____
 A) They increase the rates of blood clotting.
 B) They increase the risk of diseases of aging.
 C) They increase the rates of infection.
 D) They reduce the risk of cancer.
- 88) Which of the following is NOT one of the challenges facing the field of nutrigenomics? _____
 A) Scientists do not know the functions of thousands of genes in the human genome.
 B) Scientists have not been able to identify the mechanism by which diet contributes to disease.
 C) Age, gender, and lifestyle must also be taken into account in how foods interact with genes.
 D) The statistics needed to measure genes and their variants are very complex.
- 89) The microorganisms in the gastrointestinal (GI) tract benefit our health by _____
 A) promoting the inflammatory response.
 B) producing enzymes that help digest food and absorb nutrients.
 C) suppressing the genes that cause cancer.
 D) serving as "tags" in screenings for cancer.
- 90) Which of the following is NOT a health-promoting function associated with a healthy intake of phytochemicals from foods? _____
 A) slowing of tumor cell growth in the development of cancer
 B) reduction in inflammation that is linked to the development of heart disease
 C) increase in bacterial resistance to antibiotics
 D) enhanced immune function to protect against infection

- 91) Bread enriched with folate is an example of a _____
 A) prebiotic. B) probiotic.
 C) functional food. D) whole food.
- 92) Which of the following would provide the most effective dose of live and active bacterial cultures? _____
 A) 1 cup of wine B) 1 cup of tofu
 C) 1 teaspoon of inulin D) 1 cup of yogurt
- 93) Prebiotics contribute to health by _____
 A) adding lipids to the lining of the GI tract.
 B) decreasing lipid metabolism.
 C) stimulating the growth and activity of beneficial GI flora.
 D) adding protein and liquid to the GI tract to increase its activity.

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

- 94) Probiotics make up all of the roughly 100 trillion microorganisms living in the human body. _____
- 95) Current research suggests that the health benefits of phytochemicals come only in supplement form. _____
- 96) Probiotics contribute to human health by improving the balance of healthful bacteria in the GI tract. _____
- 97) Inulin is a kind of prebiotic that nourishes colonies of healthful bacteria in the GI tract. _____
- 98) Researchers have not discovered a link between the GI flora and obesity. _____
- 99) The GI flora make chemicals that protect against asthma and other inflammatory disorders. _____
- 100) Nutrigenomics research has shown that a mother's food intake can affect the genes expressed by her children. _____
- 101) Orange juice with added calcium is an example of a probiotic. _____
- 102) Prebiotics are generally found in easily digestible, high-protein foods such as meat and poultry. _____

Answer Key

Testname: UNTITLED1

- 1) A
Page Ref: 4
Learning Obj: 1.1
- 2) C
Page Ref: 4
Learning Obj: 1.2
- 3) C
Page Ref: 9
Learning Obj: 1.3
- 4) D
Page Ref: 9
Learning Obj: 1.3
- 5) A
Page Ref: 10
Learning Obj: 1.3
- 6) C
Page Ref: 12
Learning Obj: 1.3
- 7) D
Page Ref: 13
Learning Obj: 1.3
- 8) A
Page Ref: 11
Learning Obj: 1.3
- 9) B
Page Ref: 11
Learning Obj: 1.3
- 10) B
Page Ref: 10
Learning Obj: 1.3
- 11) C
Page Ref: 16
Learning Obj: 1.4
- 12) C
Page Ref: 9
Learning Obj: 1.3
- 13) C
Page Ref: 16
Learning Obj: 1.4
- 14) C
Page Ref: 12
Learning Obj: 1.3
- 15) A
Page Ref: 13
Learning Obj: 1.3
- 16) C
Page Ref: 12
Learning Obj: 1.3

Answer Key

Testname: UNTITLED1

- 17) B
Page Ref: 12
Learning Obj: 1.3
- 18) A
Page Ref: 12
Learning Obj: 1.3
- 19) A
Page Ref: 12
Learning Obj: 1.3
- 20) B
Page Ref: 13
Learning Obj: 1.3
- 21) D
Page Ref: 13
Learning Obj: 1.3
- 22) D
Page Ref: 10, 12
Learning Obj: 1.3
- 23) C
Page Ref: 13
Learning Obj: 1.3
- 24) C
Page Ref: 13
Learning Obj: 1.3
- 25) B
Page Ref: 13
Learning Obj: 1.3
- 26) C
Page Ref: 14
Learning Obj: 1.4
- 27) D
Page Ref: 13
Learning Obj: 1.3
- 28) A
Page Ref: 17
Learning Obj: 1.4
- 29) C
Page Ref: 16
Learning Obj: 1.4
- 30) D
Page Ref: 25
Learning Obj: 1.6
- 31) A
Page Ref: 24
Learning Obj: 1.6
- 32) A
Page Ref: 25
Learning Obj: 1.6

Answer Key

Testname: UNTITLED1

- 33) A
Page Ref: 24
Learning Obj: 1.6
- 34) B
Page Ref: 20
Learning Obj: 1.5
- 35) C
Page Ref: 21
Learning Obj: 1.5
- 36) A
Page Ref: 21
Learning Obj: 1.5
- 37) A
Page Ref: 18
Learning Obj: 1.5
- 38) A
Page Ref: 25
Learning Obj: 1.6
- 39) A
Page Ref: 8-9
Learning Obj: 1.3
- 40) C
Page Ref: 9
Learning Obj: 1.3
- 41) D
Page Ref: 10
Learning Obj: 1.3
- 42) A
Page Ref: 12
Learning Obj: 1.3
- 43) B
Page Ref: 14
Learning Obj: 1.4
- 44) D
Page Ref: 21
Learning Obj: 1.5
- 45) D
Page Ref: 20
Learning Obj: 1.5
- 46) A
Page Ref: 19
Learning Obj: 1.5
- 47) A
Page Ref: 22
Learning Obj: 1.6
- 48) B
Page Ref: 23
Learning Obj: 1.6

Answer Key

Testname: UNTITLED1

- 49) A
Page Ref: 26
Learning Obj: 1.6
- 50) C
Page Ref: 4
Learning Obj: 1.1
- 51) A
Page Ref: 6
Learning Obj: 1.2
- 52) B
Page Ref: 22
Learning Obj: 1.6
- 53) D
Page Ref: 22-23
Learning Obj: 1.6
- 54) C
Page Ref: 5
Learning Obj: 1.2
- 55) B
Page Ref: 5
Learning Obj: 1.2
- 56) B
Page Ref: 11
Learning Obj: 1.3
- 57) A
Page Ref: 11
Learning Obj: 1.3
- 58) TRUE
Page Ref: 4
Learning Obj: 1.1
- 59) TRUE
Page Ref: 5
Learning Obj: 1.2
- 60) FALSE
Page Ref: 4
Learning Obj: 1.1
- 61) FALSE
Page Ref: 10
Learning Obj: 1.3
- 62) FALSE
Page Ref: 12
Learning Obj: 1.3
- 63) FALSE
Page Ref: 13
Learning Obj: 1.3
- 64) TRUE
Page Ref: 10
Learning Obj: 1.3

Answer Key

Testname: UNTITLED1

- 65) TRUE
Page Ref: 9-10
Learning Obj: 1.3
- 66) FALSE
Page Ref: 12
Learning Obj: 1.3
- 67) TRUE
Page Ref: 6
Learning Obj: 1.2
- 68) TRUE
Page Ref: 13
Learning Obj: 1.3
- 69) FALSE
Page Ref: 12
Learning Obj: 1.3
- 70) TRUE
Page Ref: 14
Learning Obj: 1.4
- 71) TRUE
Page Ref: 21
Learning Obj: 1.5
- 72) TRUE
Page Ref: 24
Learning Obj: 1.6
- 73) FALSE
Page Ref: 4
Learning Obj: 1.1
- 74) FALSE
Page Ref: 4
Learning Obj: 1.1
- 75) TRUE
Page Ref: 18
Learning Obj: 1.5
- 76) TRUE
Page Ref: 10
Learning Obj: 1.3
- 77) FALSE
Page Ref: 21
Learning Obj: 1.5
- 78) FALSE
Page Ref: 25
Learning Obj: 1.6
- 79) TRUE
Page Ref: 24
Learning Obj: 1.6
- 80) Answers will vary.
Page Ref: 14, 16
Learning Obj: 1.4

Answer Key

Testname: UNTITLED1

- 81) Answers will vary.
Page Ref: 8-10, 12-13
Learning Obj: 1.3
- 82) Answers will vary.
Page Ref: 27
Learning Obj: 1.6
- 83) Answers will vary.
Page Ref: 5-6
Learning Obj: 1.2
- 84) Answers will vary.
Page Ref: 8
Learning Obj: 1.2
- 85) A
Page Ref: 31-32
Learning Obj: 1.5.1
- 86) C
Page Ref: 32
Learning Obj: 1.5.1
- 87) D
Page Ref: 34
Learning Obj: 1.5.3
- 88) B
Page Ref: 31-32
Learning Obj: 1.5.1
- 89) B
Page Ref: 32
Learning Obj: 1.5.2
- 90) C
Page Ref: 34-35
Learning Obj: 1.5.3
- 91) C
Page Ref: 33
Learning Obj: 1.5.3
- 92) D
Page Ref: 33-34
Learning Obj: 1.5.3
- 93) C
Page Ref: 34
Learning Obj: 1.5.3
- 94) FALSE
Page Ref: 33
Learning Obj: 1.5.3
- 95) FALSE
Page Ref: 36
Learning Obj: 1.5.3
- 96) TRUE
Page Ref: 33
Learning Obj: 1.5.3

Answer Key

Testname: UNTITLED1

97) TRUE

Page Ref: 34

Learning Obj: 1.5.3

98) FALSE

Page Ref: 33

Learning Obj: 1.5.2

99) TRUE

Page Ref: 33

Learning Obj: 1.5.2

100) TRUE

Page Ref: 31

Learning Obj: 1.5.1

101) FALSE

Page Ref: 33

Learning Obj: 1.5.3

102) FALSE

Page Ref: 34

Learning Obj: 1.5.3