

Iowa FFA 2012 Food Science CDE

Multiple Choice

Identify the choice that best completes the statement or answers the question. Place all answers onto the scantron sheet.

- ___ 1. The United States is the largest exporter of which two items?
a. milk and sugar
b. oranges and apples
c. potatoes and carrots
d. cereal grains and soybeans
- ___ 2. Vitamin ___ functions in normal blood clotting.
a. C
b. A
c. D
d. K
- ___ 3. Sucrose is commonly referred to as _____.
a. salt
b. carbohydrate
c. sugar
d. glucose
- ___ 4. ___ makes up 14 to 17 percent of the skeleton.
a. Magnesium
b. Iron
c. Phosphorus
d. Sodium
- ___ 5. ___ functions in carbohydrate metabolism.
a. Zinc
b. Thiamin
c. Riboflavin
d. Vitamin B
- ___ 6. Carbohydrates and proteins provide about ___ calories per gram.
a. 5
b. 2
c. 4
d. 6
- ___ 7. Fat contributes about ___ calories per gram.
a. 9
b. 10
c. 8
d. 7
- ___ 8. Most vitamins are measured in _____.
a. milligrams
b. grams
c. liters
d. kilograms
- ___ 9. Naturally occurring ___ play a role in food coloring.
a. enzymes
b. sugars
c. pigments
d. carbohydrates
- ___ 10. Fruits and vegetables are graded based on their ___ and _____.
a. size, shape
b. color, size
c. smell, shape
d. smell, color
- ___ 11. ___ standards help ensure food quality.
a. National
b. Quality
c. Packing
d. Legal
- ___ 12. Microbial growth slows at temperatures under ___°F.
a. 80
b. 70
c. 60
d. 50

- ___ 13. ___ can destroy the microorganisms and inactivate enzymes.
- a. Radiation
 - b. Cooling
 - c. Drying
 - d. Freezing
- ___ 14. ___ is the transfer of heat from one particle to another by contact.
- a. Conduction
 - b. Convection
 - c. Radiation
 - d. Combustion
- ___ 15. ___ heating means that the circulation of currents in one region inside a can distributes the heat to another.
- a. Conduction
 - b. Radiation
 - c. Convection
 - d. Slow
- ___ 16. ___ is the transfer of energy in the form of electromagnetic waves.
- a. Compulsion
 - b. Radiation
 - c. Convection
 - d. Conduction
- ___ 17. To achieve continuous pasteurization in milk, the milk needs to be heated to 161°F for ___ seconds.
- a. 15
 - b. 20
 - c. 10
 - d. 5
- ___ 18. Low-acid foods have pH values of ___ or less.
- a. 5.2
 - b. 4.6
 - c. 3.9
 - d. 4.2
- ___ 19. Foods high in ___ or other solutes dry more slowly.
- a. protein
 - b. salt
 - c. sugar
 - d. water
- ___ 20. ___ is when water goes from a solid to a gas without passing through the liquid phase.
- a. Transfusion
 - b. Sublimation
 - c. Evaporation
 - d. Condensation
- ___ 21. Reducing the volume and weight of a product saves ___ during processing.
- a. time
 - b. energy
 - c. money
 - d. flavor
- ___ 22. Low-temperature ___ evaporators are used for heat-sensitive foods.
- a. ultrafiltration
 - b. osmosis
 - c. vacuum
 - d. drum
- ___ 23. Lactic acid bacteria with propionic acid bacteria produces ___ cheese.
- a. cheddar
 - b. mozzarella
 - c. swiss
 - d. monterey jack
- ___ 24. Fermentation is stopped by pasteurizing and ___.
- a. cooling
 - b. heating
 - c. stirring
 - d. settling
- ___ 25. Bread is leavened with ___.
- a. yeast
 - b. sugar
 - c. salt
 - d. baking soda

- ___ 26. GMO stands for ____.
- a. genetically modified organism
 - b. genetically manufactured oranges
 - c. gross moldy oranges
 - d. genetically malfunctioning organisms
- ___ 27. The use of food additives is controlled by the ____ clause.
- a. Delaney
 - b. Additive
 - c. Delaware
 - d. Supplement
- ___ 28. ____ are the most heavily used additives.
- a. Minerals
 - b. Vitamins
 - c. Gums
 - d. Sweeteners
- ___ 29. Sequestrants are ____ agents.
- a. cheating
 - b. chelating
 - c. chilling
 - d. charcoal
- ___ 30. In terms of additives, ____ include both natural and synthetic colorants.
- a. flavors
 - b. gums
 - c. colors
 - d. sweeteners
- ___ 31. ____ make a food acid or sour.
- a. Flavorings
 - b. Texturings
 - c. Colorings
 - d. Acidulants
- ___ 32. The outside of the steel can is protected from rust by a thin layer of ____.
- a. tin
 - b. copper
 - c. aluminum
 - d. silver
- ___ 33. Newer plastic materials for packaging contain cornstarch, which makes them more ____.
- a. sanitary
 - b. tough
 - c. expensive
 - d. biodegradable
- ___ 34. Retortable pouches for packaging have ____ layers.
- a. three
 - b. two
 - c. four
 - d. five
- ___ 35. Turbidity of water is ____.
- a. taste
 - b. smell
 - c. cloudiness
 - d. content
- ___ 36. Molds and yeast are classified as ____.
- a. viruses
 - b. parasites
 - c. fungi
 - d. bacteria
- ___ 37. ____ organisms tolerate low temperatures and can grow under refrigeration.
- a. Psychrophilic
 - b. Mesophilic
 - c. Psychrotrophic
 - d. Thermotrophic
- ___ 38. Which agency registers chemical sanitizers and antimicrobial agents for use on food and food product contact surfaces?
- a. EPA
 - b. FDA
 - c. USDA
 - d. HACCP

- ___ 39. Of the microorganisms, ___ are the greatest threat to food safety.
- a. viruses
 - b. parasites
 - c. fungi
 - d. bacteria
- ___ 40. Ingredients on a food label are listed in ___ order, based on weight.
- a. descending
 - b. ascending
 - c. alphabetical
 - d. chronological
- ___ 41. A daily intake of ___ calories has been established as the daily reference value (DRV).
- a. 1,700
 - b. 1,800
 - c. 1,900
 - d. 2,000
- ___ 42. The word ___ on a label, means that a product contains no amount of, or only trivial or “physiologically inconsequential” amounts of, one or more of these components: fat, saturated fat, cholesterol, sodium, sugars, and calories.
- a. Low
 - b. Free
 - c. Lean
 - d. Reduced
- ___ 43. The term ___ can be used on the labels of foods that can be eaten frequently without exceeding dietary guidelines for one or more of these components: fat, saturated fat, cholesterol, sodium, and calories.
- a. free
 - b. reduced
 - c. lean
 - d. low
- ___ 44. The DRVs for the energy-producing nutrients are calculated as fat based on ___ percent of calories.
- a. 30
 - b. 20
 - c. 25
 - d. 35
- ___ 45. Worldwide, about ___ million people are hungry.
- a. 300
 - b. 500
 - c. 800
 - d. 200
- ___ 46. In developing countries, the time before ___ is most difficult for meeting nutritional needs of the people.
- a. planting
 - b. harvest
 - c. winter
 - d. spring
- ___ 47. Eradication of ___ is essential to improve access to food.
- a. malnutrition
 - b. undernutrition
 - c. poverty
 - d. terrorism
- ___ 48. The Declaration on World Food Security pledges its efforts to reducing the number of undernourished people to ___ their present level no later than 2015.
- a. half
 - b. one-third
 - c. one-fourth
 - d. three-fourths
- ___ 49. ___ play an important role in the development of new foods and nonfood uses.
- a. Bakers
 - b. Butchers
 - c. Chemists
 - d. Inspectors
- ___ 50. On first reading, an employer will spend ___ seconds reading a résumé.
- a. 5 to 10
 - b. 10 to 15
 - c. 15 to 20
 - d. 20 to 30

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Answer Section

MULTIPLE CHOICE

1. ANS: D	PTS: 1	41. ANS: D	PTS: 1
2. ANS: D	PTS: 1	42. ANS: B	PTS: 1
3. ANS: C	PTS: 1	43. ANS: D	PTS: 1
4. ANS: C	PTS: 1	44. ANS: A	PTS: 1
5. ANS: B	PTS: 1	45. ANS: C	PTS: 1
6. ANS: C	PTS: 1	46. ANS: B	PTS: 1
7. ANS: A	PTS: 1	47. ANS: C	PTS: 1
8. ANS: A	PTS: 1	48. ANS: A	PTS: 1
9. ANS: C	PTS: 1	49. ANS: C	PTS: 1
10. ANS: A	PTS: 1	50. ANS: B	PTS: 1
11. ANS: B	PTS: 1		
12. ANS: D	PTS: 1		
13. ANS: A	PTS: 1		
14. ANS: A	PTS: 1		
15. ANS: C	PTS: 1		
16. ANS: B	PTS: 1		
17. ANS: A	PTS: 1		
18. ANS: B	PTS: 1		
19. ANS: C	PTS: 1		
20. ANS: B	PTS: 1		
21. ANS: C	PTS: 1		
22. ANS: C	PTS: 1		
23. ANS: C	PTS: 1		
24. ANS: A	PTS: 1		
25. ANS: A	PTS: 1		
26. ANS: A	PTS: 1		
27. ANS: A	PTS: 1		
28. ANS: D	PTS: 1		
29. ANS: B	PTS: 1		
30. ANS: C	PTS: 1		
31. ANS: D	PTS: 1		
32. ANS: A	PTS: 1		
33. ANS: D	PTS: 1		
34. ANS: A	PTS: 1		
35. ANS: C	PTS: 1		
36. ANS: C	PTS: 1		
37. ANS: C	PTS: 1		
38. ANS: A	PTS: 1		
39. ANS: D	PTS: 1		
40. ANS: A	PTS: 1		