

1. \_\_\_\_\_ increase the effectiveness of a cleaner in a food production facility by controlling properties of the cleaning solution that tend to reduce a surfactant's effectiveness.
  - a. Builders
  - b. Deflocculants
  - c. Buffers
  - d. Agitators
2. A company is producing ready-to-reheat-and-eat Beef Burritos to be sold at convenience stores. During production of the product, what is the minimum temperature that the ground beef must reach for safety? (assume no holding or rest time at the final end temperature)
  - a. 170°F
  - b. 140°F
  - c. 150°F
  - d. 160°F
3. To measure product temperature after thermal processing, a food technologist would use a \_\_\_\_\_ thermometer.
  - a. calibrated
  - b. tared
  - c. balanced
  - d. regulated
4. MAP is an acronym for \_\_\_\_\_ and used as a packaging technique.
  - a. minimum absolute packaging
  - b. membrane associated packaging
  - c. modified atmosphere packaging
  - d. maximum application packaging
5. A pudding manufacturer discovered moisture on the pudding surface after holding the cooked pudding in refrigerated storage. This moisture is due to \_\_\_\_\_.
  - a. hydrolysis
  - b. syneresis
  - c. viscosity
  - d. emulsification
6. \_\_\_\_\_ wheat is used to make pasta.
  - a. Hard white
  - b. Club
  - c. Soft white
  - d. Durum
7. The chemical formula  $C_8H_{10}N_4O_2$  represents the chemical \_\_\_\_\_.
  - a. table salt
  - b. sodium bicarbonate
  - c. caffeine
  - d. sodium nitrite
8. In a \_\_\_\_\_ process, fat globules are reduced to a smaller, more equal, size and distributed evenly.
  - a. pasteurization
  - b. homogenization
  - c. distillation
  - d. filtration
9. Fatty acids with \_\_\_\_\_ have higher melting points.
  - a. more unsaturation
  - b. less carbons
  - c. more double bonds
  - d. more carbons
10. During bread-making production, water is mixed with flour to form \_\_\_\_\_ from wheat proteins.
  - a. gluten
  - b. gelatin
  - c. galangai
  - d. gurnard

11. Which of the following is NOT an example of an emulsion?
- mayonnaise
  - butter
  - cola
  - ice cream
12. Mushrooms are high in \_\_\_\_\_, which makes them a natural version of MSG, contributing to the umami taste.
- aspartic acid
  - tartric acid
  - glutamic acid
  - malic acid
13. When manufacturing baked goods, baking soda is used with an acid to prevent \_\_\_\_\_ from forming.
- sodium citrate
  - sodium hydroxide
  - sodium bitartrate
  - sodium carbonate
14. Fruit punch sold in a standup foil pouch at ambient temperature is processed using \_\_\_\_\_ which sterilizes the beverage by heat and then transfers the beverage to a sterilized container.
- retorting
  - aseptic processing
  - cold pack processing
  - pressure processing
15. Cottage cheese manufacture involves a(n) \_\_\_\_\_ precipitation of casein.
- base
  - neutral
  - soluble
  - acid
16. To deactivate enzymes in fruits and vegetables prior to freezing, companies use a process called \_\_\_\_\_.
- sulfiting
  - catabolism
  - blanching
  - inversion
17. The monosaccharide \_\_\_\_\_ is found in fruit.
- sucrose
  - fructose
  - lactose
  - maltose
18. Food that is not tightly packaged before being sold frozen can develop \_\_\_\_\_ during frozen storage.
- freezer burn
  - moisture loss
  - off flavor
  - all of the above
19. The fat soluble vitamins are \_\_\_\_\_.
- A, B<sub>1</sub>, B<sub>2</sub>, C
  - B<sub>1</sub>, Riboflavin, Niacin, Folate
  - Pantothenic acid, Biotin, C, K
  - A, D, E, K
20. The \_\_\_\_\_ required food manufacturers to provide easy-to-understand labeling of allergen ingredients on food packages.
- Food Safety Modernization Act
  - Food, Drug, and Cosmetic Act
  - Food Allergen labeling and Consumer Protection Act
  - Food Quality Protection Act

21. The amount of heat needed to either evaporate or condense a liquid is called the \_\_\_\_\_.
- latent heat of crystallization
  - latent heat of vaporization
  - latent heat of fusion
  - latent heat of sublimation
22. This agency is responsible for oversight of meat and poultry.
- DHHS FDA
  - USDA FSIS
  - USDA AMS
  - DHHS CDC
23. A food scientist is designing a study to evaluate the effect of different lighting types on the quality characteristics of a ready-to-reheat-and-eat dinner sausage during 90 days of refrigerated shelf life display. The \_\_\_\_\_ is (are) the independent variable(s) in the study.
- lighting type
  - 90 day shelf life
  - sausage quality characteristics
  - all of the above
24. Another name for whey is \_\_\_\_\_.
- casein
  - lactose
  - serum protein
  - milk fat
25. Gases dissolved in a liquid such as in a carbonated soda escape more quickly if the soda is \_\_\_\_\_.
- cold
  - warm
  - at room temperature
  - temperature does not have an influence
26. During a food chemical reaction, \_\_\_\_.
- matter is created
  - matter is destroyed
  - matter is created and then destroyed
  - matter is neither created nor destroyed
27. Unshortened cakes depend on \_\_\_\_\_ for leavening.
- baking soda
  - baking powder
  - air beaten into egg foam
  - yeast
28. A water-and-salt mixture that contains large amounts of salt for pickle production is called a \_\_\_\_\_.
- brine
  - fermentation mother
  - marinade
  - steeping solution
29. COP is an acronym used in the food plant sanitation industry and means \_\_\_\_\_.
- community of practice
  - cleaning out of place
  - common operational procedure
  - cleaner operating properly
30. A product that has a claim on the label stating that it is "low," means a product \_\_\_\_\_.
- can be consumed often without exceeding the daily value for the nutrient
  - contains none or an insignificant amount of a nutrient
  - sodium level has been reduced by 50%
  - contains 25% less of a nutrient than another food

31. BHA is used in food products as a(n) \_\_\_\_\_.
- stabilizer
  - flavor enhancer
  - thickener
  - antioxidant
32. \_\_\_\_\_ is the component in chili peppers that makes them hot.
- Caroteniod
  - Capsanthin
  - Capsaicin
  - Capsorubin
33. As fat in walnuts oxidize, the walnuts \_\_\_\_\_.
- taste better
  - have a longer shelf-life
  - become rancid
  - are more susceptible to microbial growth
34. Light cream or coffee cream contains \_\_\_\_\_ percent fat.
- 10.5-18
  - 18-30
  - 30-36
  - ≤36
35. An \_\_\_\_\_ is when two or more people get the same illness from consuming the same contaminated food or drink.
- encounter
  - intervention
  - epidemic
  - outbreak
36. Papain is an enzyme from \_\_\_\_\_ that is used as a meat tenderizer.
- pineapple
  - papaya
  - figs
  - kiwi
37. Prolonged heating will not destroy the toxin produced by \_\_\_\_\_.
- Clostridium botulinum*
  - Listeria monocytogenes*
  - Escherichia coli* O157:H7
  - Staphylococcus aureus*
38. A company manufactures pancakes that are sold in the freezer section of a retail store. When the pancakes are formed by the company, they are poured onto a hot metal surface and heat is transferred by \_\_\_\_\_.
- convection
  - conduction
  - radiation
  - induction
39. Beating a raw egg changes the shape of the protein molecule without breaking peptide bonds, also known as \_\_\_\_\_.
- coagulation
  - denaturation
  - separation
  - precipitation
40. Insects are being explored to use as a sustainable alternative \_\_\_\_\_ source.
- fiber
  - water
  - protein
  - Both a and b
41. BSE in cattle is thought to be caused by a \_\_\_\_\_.
- prion
  - virus
  - bacteria
  - fungi

42. A candy manufacturer needs to use a sugar that caramelizes at 110°C instead of 170°C for a new product. Which sugar should be used by the manufacturer?
- Sucrose
  - Glucose
  - Galactose
  - Fructose
43. HARPC will be mandated for most FDA regulated products and is the outcome of the \_\_\_\_\_.
- Pathogen Reduction Rule
  - Food Safety Modernization Act
  - Food, Drug, and Cosmetic Act
  - Pure Food and Drug Act
44. A dehydrated food should contain \_\_\_\_\_ percent of its original moisture.
- 5-10
  - 15-20
  - 20-30
  - 30-40
45. pH is an intrinsic factor of food and is measured on a scale that ranges from \_\_\_\_\_.
- 1-14
  - 0-13
  - 1-13
  - 0-14
46. Apples contain an enzyme called \_\_\_\_\_ that will catalyze the formation of brown pigments on a peeled surface in the presence of air
- polyphenol oxidase
  - catalase
  - $\alpha$ -galactosidase
  - peptide hydrolase
47. A food product developer was asked to develop a ready-to-eat cereal bar so the finished product would be 5 inches long, 2 inches wide, and 0.25 inches thick. Management wants the length dimension in metric values, so this would be \_\_\_\_\_ cm.
- 1.95
  - 18.42
  - 10.0
  - 12.7
48. The USDA organic seal on a food product means it is \_\_\_\_\_.
- natural
  - certified organic and has 95% or more organic content
  - healthier than conventionally produced food
  - more nutritious than conventionally produced food
49. Aflatoxin is a mycotoxin produced by \_\_\_\_\_ that is a potential hazard in cereal grains.
- bacteria
  - yeasts
  - molds
  - viruses
50. The \_\_\_\_\_ usually leads investigations of widespread foodborne illnesses that affect many states at once.
- local city or health department
  - state health department
  - CDC
  - EPA

