

1. Lecithin is an emulsifier because _____.
 - a. It has a polar end that is attracted to oil and a non-polar end that is attracted to water
 - b. It inhibits oil (dispersed phase) from being dispersed into water (continuous phase)
 - c. it has a polar end that is attracted to water and a non-polar end that is attracted to oil
 - d. it disrupts an emulsion colloid
2. The percent daily value recommendation on a Nutrition Facts label is based on a _____ calorie daily diet.
 - a. 1,000
 - b. 1,500
 - c. 2,000
 - d. 3,000
3. During the manufacture of crackers, ammonium bicarbonate in the presence of heat produces _____, carbon dioxide, and water.
 - a. sodium carbonate
 - b. sodium chloride
 - c. trisodium diphosphate
 - d. ammonia
4. To reduce the risk of BSE in the U.S. food supply, _____ is not permitted in human food products or dietary supplements.
 - a. beef brain
 - b. beef cheek meat
 - c. pork brain
 - d. pork cheek meat
5. The _____ was established in 1944 by the United Nations with the objectives of eliminating hunger and improving nutrition worldwide.
 - a. World Health Organization
 - b. Food and Agricultural Organization
 - c. Codex Alimentarius
 - d. UNICEF
6. _____ is a protein formed from glutenin and gliadin found in wheat.
 - a. Keratin
 - b. Gluten
 - c. Gelatin
 - d. Casein
7. When equal amounts of water and cooking oil are placed in matching containers over identical heat sources, the temperature of the cooking oil will increase much faster than water because _____.
 - a. the specific heat of water is higher than that of oil
 - b. the specific heat of oil is higher than that of water
 - c. the density of water is higher than that of oil
 - d. the density of oil is higher than that of water
8. A large pressure canner used to commercially can food is called a _____.
 - a. finisher
 - b. extruder
 - c. retort
 - d. formax

9. The meat industry is mandated to have HACCP while FDA commodities other than juice or seafood are mandated to have _____ plans for food safety.
- a. Preventive Controls for Human Food
 - b. Process Containment for Food
 - c. Production Checks for Food
 - d. Potential Controls for Human Food
10. Maltase in yeast cells acts as a catalyst for the breakdown of _____ to simple sugars in the process of making yeast bread.
- a. glucose
 - b. galactose
 - c. sucrose
 - d. maltose
11. _____ are compounds or metabolites produced by molds that are toxic or have other adverse biological effects on humans.
- a. Psychrotrophs
 - b. Mycotoxins
 - c. Iodophors
 - d. Biofilms
12. When oxygen reacts with _____ in freshly cut banana, the bananas turn brown.
- a. acids
 - b. bases
 - c. enzymes
 - d. moisture
13. If an acid is added to milk lowering the pH to about 4.6, the _____ breaks down and forms lumps called curds.
- a. whey
 - b. casein
 - c. calcium
 - d. lactose
14. Sodium nitrite is added to some meat products as a _____.
- a. stabilizer
 - b. pH controller
 - c. curing agent
 - d. binding agent
15. When carbon dioxide is dissolved in a liquid such as carbon dioxide in a carbonated soda, the carbon dioxide is more soluble under _____.
- a. colder temperatures
 - b. low pressure
 - c. pressure and temperature have no effect
 - d. warmer temperatures
16. Which of the following sugars is considered to be the sweetest?
- a. glucose
 - b. maltose
 - c. fructose
 - d. sucrose
17. _____ is an enzyme that converts milk sugar into glucose and galactose.
- a. Lactase
 - b. Amylase
 - c. Phytase
 - d. Invertase

18. A company developed a new food product and is asking several hundred people how much they like or dislike the product or one of its flavor/texture characteristics. This would be an example of a _____.
a. consumer panel
b. laboratory panel
c. highly trained expert panel
d. research panel
19. Pasteurization of milk will _____.
a. kill spoilage bacteria
b. denature enzymes
c. increase the rate of spoilage
d. decrease the safety of the milk
20. Caffeine is an example of a(n) _____.
a. heterogeneous mixture
b. homogeneous mixture
c. element
d. compound
21. Freezer burn is _____.
a. mold growing on a product in a freezer
b. not detrimental to food quality
c. occurs in tightly vacuum packaged food
d. caused by moisture loss from food when food is exposed to air in a freezer
22. Which of the following is not a function of fat in a food?
a. Tenderizing
b. Flavor
c. Aeration
d. Gelling agent
23. A company recalled chicken spring rolls because the product contained eggs that were not listed on the package label. This would be an example of a hazard due to a(n) _____.
a. pathogen
b. allergen
c. radiological contaminant
d. physical contaminant
24. A food scientist is designing a product that requires a mold inhibitor. Which one of the following ingredients should this person select to provide this function?
a. Propionic acid
b. Calcium alginate
c. Tartaric acid
d. Silicon dioxide
25. White chocolate contains _____.
a. chocolate liquor
b. cocoa butter
c. caffeine
d. chocolate butter
26. _____ is considered an allergen that would require labeling on a food product in the U.S.
a. Coconut
b. Corn meal
c. Celery
d. Canola oil
27. Three enzymes which come from papaya fruit are diluted with salt to make a dry powder that can be used as a _____.
a. coagulation agent
b. clarifying agent
c. meat tenderizer
d. antioxidant

28. Denaturation is the first step in the process of protein _____, or when a liquid changes into a soft, semisolid clot or solid mass such as in the process of manufacturing yogurt.
- a. dispersion
 - b. separation
 - c. homeostasis
 - d. coagulation
29. Which of the following is not a water soluble vitamin?
- a. Vitamin C
 - b. Vitamin K
 - c. Vitamin B₂
 - d. Thiamin
30. _____ is a method that measures ATP by its reaction with the luciferin-luciferase complex to provide an indication of the microbial load on the surface of food processing equipment.
- a. Turbidity
 - b. Impedance
 - c. Bioluminescence
 - d. Catalase
31. _____ is a pathogen that has the potential to contaminate ready-to-eat foods by contaminating the food after processing and before packaging, and was responsible for a recent recall with Eggo waffles.
- a. *E. coli* O157:H7
 - b. *Salmonella* sp.
 - c. *Staphylococcus aureus*
 - d. *Listeria monocytogenes*
32. Product that is contained in a MAP package means that it is packaged in _____.
- a. modified activated pressure
 - b. modified atmosphere packaging
 - c. membrane advanced packaging
 - d. managed aerobic plastic
33. _____ is the main plant fiber found in food and is a polymer made of a form of glucose called beta-D-glucose.
- a. Pectin
 - b. Hemicellulose
 - c. Cellulose
 - d. Algal polysaccharide
34. The type of electromagnetic waves used for irradiation are called _____.
- a. gamma rays
 - b. infrared waves
 - c. ultraviolet waves
 - d. radio waves
35. _____ is (are) a water soluble pigment found in blackberries, blueberries, and other fruits and vegetables, and turn red in acid solutions.
- a. Chlorophyll
 - b. Tannins
 - c. Anthocyanins
 - d. Quinones

36. _____ is an artificial sweetener that is a chlorinated sucrose derivative, is not absorbed by the body when consumed, and does not break down with heat so it can be used in baked products.
- a. Sucralose
 - b. Aspartame
 - c. Acesulfame potassium
 - d. Stevia
37. According to the U.S. government, ground beef should be cooked to a minimum internal temperature of _____ for safety.
- a. 62.8°C
 - b. 65.6°C
 - c. 68.3°C
 - d. 71.1°C
38. Bread manufactured from _____ can use the term “whole wheat” on the label.
- a. wheat with the germ and bran removed
 - b. wheat with the germ intact
 - c. wheat with the bran intact
 - d. wheat with the bran and germ intact
39. Leaves from the tea plant, which is part of the _____ family, grow in a wide range of climates and are used to make tea.
- a. oleaceae
 - b. camellia
 - c. moraceae
 - d. rutaceae
40. Umami is found in food and beverages that are high in _____.
- a. sodium
 - b. fats
 - c. carbohydrates
 - d. amino acids
41. The aroma and color of pancakes come from a chemical reaction known as _____.
- a. enzymatic browning
 - b. Maillard browning
 - c. caramelization
 - d. oxidative browning
42. _____ is the protection of food products from intentional adulteration by biological, chemical, physical, or radiological agents.
- a. HACCP
 - b. Process Containment for Food
 - c. Food defense
 - d. Surveillance
43. A food technologist is making a new product that will use a powdered granulated sugar with an added anti-caking agent such as cornstarch. This type of sugar is called _____.
- a. table sugar
 - b. brown sugar
 - c. molasses
 - d. confectioners sugar
44. The color of fresh meat before it becomes oxygenated is _____.
- a. red
 - b. brown
 - c. purple
 - d. blue

45. _____ bacteria are used for fermentation in the vinegar making process.
- a. Lactic acid
 - b. Acetic acid
 - c. Carbon dioxide
 - d. Proteolytic
46. In the U.S., milk is regulated by the _____.
- a. Department of Health and Human Services Food and Drug Administration
 - b. United States Department of Agriculture Food Safety and Inspection Service
 - c. United States Environmental Protection Agency
 - d. The Centers for Disease Control and Prevention
47. The more solute present in a solution, the _____ the boiling point and the _____ the freezing point will be.
- a. lower, lower
 - b. lower, higher
 - c. higher, lower
 - d. higher, higher
48. Sublimation is induced in a method of food preservation called _____.
- a. dehydration
 - b. retorting
 - c. freeze drying
 - d. refrigeration
49. _____ is the change of a protein's shape under stress, such as when egg whites are beaten to form a foam.
- a. Acetylation
 - b. Derivatization
 - c. Acylation
 - d. Denaturation
50. If a commercial manufacturer of prepared muffins stirred the batter too long prior to baking, a _____.
- a. tough product with tunnels would occur due to overdevelopment of gluten
 - b. light and delicate product would result due to underdevelopment of gluten
 - c. tough product would occur due to overdevelopment of gliadin.
 - d. tender product with tunnels would occur do to underdevelopment of gluten