1. Sterilization occurs at high temperatures for long periods of time.

a. True

b. False

2. Which of the following microorganism survive at -9 to -17 degree C?

a. Salmonella

b. Staphylococci

c. Bacilli

d. Clostridium

3. Which of the following microorganism is eliminated in canned foods?

a) Mycobacterium tuberculosis

b) Coxiella burnetii

c) Clostridium botulinum

d) Lactobacillus

4. Phosphatase enzyme present in milk is destroyed in which of the following processes?

a. Sterilization

b. Canning

c. Dehydration

d. Pasteurization

5. Jellies and jams are rarely affected by bacterial action.

a. True

b. False

6. Which chemical is used to inhibit mold growth in bread?

a. benzoic acid

b. nitrates

c. sorbic acid

d. lactic acid

7. Acetic acid and lactic acid are used for

a. curing meats

b. preservation of color

c. preservation of pickles

d. inhibiting mold growth

8. Which of the following method is used for treatment of water used for the depuration of shellfish?

a. Chemicals

b. Radiation

c. Low temperature

d. Osmotic pressure

9. In bread manufacturing, alcoholic fermentation is carried out by

a. Streptococcus thermophillus

b. Saccharomyces cerevisa

c. S. carlsbergensis

d. Lactobacillus bulgaricus

10. Lactic acid bacteria include

a. Lactococcus lacti

b. Lactococcus cremoris

c. Bifidobacterium

d. All above

11. Type of yeast used for alcoholic fermentation is

a. Saccharomyces Cerevisiae

b. Streptococcus thermophillus

c. Acetobacter acceti

d. Clostridium botulinum

12. Thermophiles grows at

a. 8 to 45 °C

b. 25 to 30 °C

c. 0 to 20 °C

d. 50-60 °C

13. Clostridium Botulinum is

a. Bacteria

b. Mold

c. Yeast

d. Virus

14. Food intoxication is the ingestion of

a. Toxin produced by microorganism

b. Toxin producing microorganism

c. None

d. Both of these

15. The temperature resistance of microorganism in high acid food is

a. High

b. Medium

c. Low

d. No effect

16. Any change that renders food unfit for human consumption is called

a. Processing

b. Spoilage

c. Deterioration

d. Preservation

17. Clostridium botulinum mainly result in spoilage of - -foods

a. High acid Food

b. Acidic Food

c. Medium acid Food

d. Low acid Food

18. Spoilage in food because of microbial activity can be prevented or delayed by

a) Prohibiting the entry of micro-organisms in food

b) Physical removal of micro-organisms

c) Hindering the activity of micro-organisms

d) All of above

19. Two types of fermentations are carried out for the production of

a. Pickle

b. Yoghurt

c. vinegar

d. Sausages

20. In spore forming bacteria maximum resistance occurs at pH

a. 4

b. 5

c. 6

d. 7

21. Pasteurization is the heat treatment designed primarily to kill

a. Vegetable forms of microorganisms

b. All form of microorganisms

c. Spore

d. None of above

22. The target microorganism in canning is

a. Clostridium botulinum

b. Streptococcus thermophillus

c. PA 3679

d. Lactobacillus bulgaricus

23. The growth of aerobic food spoilage and pathogenic microorganisms can be suppressed by

a. Humectants

b. Exhausting

c. Both a and b

d. None of above

24. What does HACCP stand for?

a) Hazardous And Critical Control Points

b) Hazard Analysis and Critical Control Points

c) Health And Critical Control Practices

d) Health Analysis and Critical Control Practices

25. Why was HACCP developed?

a. To ensure food safety in the food industry.

b. To reduce the incidence of foodborne illnesses in astronauts.

c. To provide a disciplined application of science to food production.

d. Both B and C.

26. What are the benefits of HACCP to the food industry?

a) Increases confidence in the product.

b) Provides business liability protection.

c) Improves food safety.

d) All of the above.

27. What are the seven principles of the HACCP concept?

a) Verification, identification, establishment, monitoring, control, corrective action, documentation.

b) Identification, verification, establishment, documentation, flow diagram, monitor, control.

c) Identification, control, critical limits, monitoring, corrective action, verification, documentation.

d) Verification, critical control points, critical limits, monitoring, corrective action, identification, documentation.

28. What is the definition of a Food Safety Hazard?

a) A biological agent in food with the potential to cause an adverse health effect.

b) A physical agent in food with the potential to cause an adverse health effect.

c) A chemical agent in food with the potential to cause an adverse health effect.

d) A biological, chemical or physical agent in, or condition of, food with the potential to cause an adverse health effect.

29.Why will hazards vary among food production facilities producing the same foods?

a). Differences in sources of ingredients/materials

b) Differences in production protocols

c) Differences in processing equipment

d) All of the above

30... is an example of an allergen that can cause foodborne illness?

a. Pesticides

b. Antibiotics

NONE IS CORRECT

c. Fertilizers

d. All of the above

31.Which of the following is an example of a chemical hazard that can occur naturally in food?

a) Allergens

b) Mycotoxins

c) Pesticides

d) Lead

32.Which of the following is an example of a chemical hazard that can be added to food?

a) Lead

b) Zinc

c) Fertilizers

d) Growth hormones

33.What is the hazard potential of glass as a physical hazard?

a) Choking

b) Cuts and bleeding

c) Infection

d) Broken teeth

34.What should be done when any modification is made in the product, production process, or any step?

a) Nothing, the HACCP plan doesn't need to be reviewed

b) The HACCP application should be reviewed, and necessary changes made

c) The HACCP application should be scrapped and a new plan created

d) None of the above

35.What is the logic sequence for the implementation of the HACCP principles?

a) Assemble HACCP Team, Describe Food product, Identify Intended Use, Construct Flow Diagram

b) List all Potential Hazards/Conduct a Hazard Analysis/Consider Control Measures, Determine Critical Control Points, Establish Critical Limits for each CCP

c) Establish a monitoring system for cach CCP, Establish Corrective actions, Establish Verification Procedures

36.Which one of the following is used in food preservation?

a. Sodium Carbonate

b. Acetylene

c. Benzoic Acid

d. Sodium Chloride

37.Which one of the following substances is used in the preservation of food stuff?

a. Sodium Chloride

b. Sodium Benzoate

c. Potassium Chloride

d. Citric Acid

38.Fats in frozen fish tissue tend to become rancid quicker than fats in frozen animal tissues.

a. true

b. false

39. Which of the following nutrients are lost in all steps of food engineering (including packaging and freezing)?

a) minerals

b) vitamins

c) fats

d) proteins

40.Enzyme activity is more in super cooled water than in crystallized water at the same temperature.

a. true

b. false

41.Refrigeration helps in food preservation by

a) Sealing the food with a layer of ice

b) Destroying enzyme action

c) Reducing the rate of biochemical reactions

d) Killing the germs

42.What is the main purpose of the HACCP system?

a. To identify potential areas of food safety concerns.

b. To control potential food safety hazards.

c. To increase market access.

d. Both A and B

43.Pork has a higher shelf life than beef.

a. true

b. false

44. At a minimum, the temperature of cold foods on a salad bar should be checked every

a. Hour

b. Two hours

c. Three hours

d. At least once per shift

45. A disadvantage of using a chlorine compound as a sanitizer is that:

a. at can kill a wide range of microorganisms

b. It is the least expensive type of sanitizer

c. It isn't as effective at a pH below 6.0 or above 7.5

d. It doesn't leave a film on surfaces

46. A HACCP system focuses on:

a) Reducing risk by analyzing hazards and identifying ways to control those hazards in an ongoing food safety program

b. Increasing food safety and customer satisfaction by controlling critical analysis of potentially hazardous foods

c. Increasing worker safety by controlling equipment hazards

d. The first seven steps in twelve step program for certified food protection managers

47. Which of the following is considered a type of hazard when conducting a hazard analysis?

a. End user hazard

b. Cooking hazard

c. Process hazard

d. Chemical hazard

48. Biological agents can cause illness through infection or

a) Hormone growth

b) Intoxication

c) Cell division

d) Infection by-product

49. A step in the process where control must be applied in order to prevent or reduce hazard to an acceptable level is called a

a. Critical control point

b. Control point

c. Hazard point

d. Critical action point

50. Corrective actions must

a) Stop the food preparation process

b) Be handled by the manager

c) Be reported to the health department

d) Be pre-planned actions

51. Which of the following will be a critical control point for a food establishment selling hamburgers?

a) Storage of dry goods

b) Explaining menu items to customers

c) Making four ounce hamburger patties

d) Cooking hamburger patties

52. HACCP plan validation

a) Compare your HACCP to that of similar organizations

b) Documents that your plan will control hazards

c) Requires filing your plan with a local health department

d) Documents that your organization is using the HACCP plan correctly

53. Every CCP must have

a) A critical limit established

b) Two or more hazards to control

c) Temperature control for safety

d) Health department approval

54. Which of the following is not one of the seven principles of HACCP

a) Determine the critical control point

b) Establish critical limit

c) Establish supplier specifications

d) Establish a record-keeping system

55. A cook discovers a large container of rice in the walk-in cooler is at 12 degrees Celsius. The rice was cooked the previous evening and has been in the walk-in cooling for at least 12 hours. No temperature was recorded when the rice went into the cooler. If the CCP for this product is to rapidly cool it, and the critical limit states that it must be cooled from 60 degrees Celsius to 5 degrees Celsius in less than 6 hours, the corrective in this case will be to

a. Rapidly reheat the rice to 74 degrees Celsius and separate the product into smaller containers to cool it back down quicker

b. Throw the rice and retrain the employees involved in cooling practices, the temperature abuse, and temperature monitoring

c. Rapidly heat the rice to 74 degrees Celsius and serve immediately

d. Check to make sure the walk-in cooler is working properly

56. Which of the following statements is false?

a) Inhibition of starter organism potentially allows pathogens to grow which results economic loss

b) It is a usual practice to supplement the solid content of the milk to enhance the final texture of yoghurt

c) Addition of small amounts of natural or modified gums to yoghurt is a way improving and stabilizing the product

d) Lactic acid desolubilizes Ca and PO ions which in turn destabilize the complex casein micelles and denatured whey protein.

57. Which of the following statements is true?

a. Milk for yoghurt production is usually heated in excess of the normal pasteurization temperature requirement for safety

b. Textural quality of yoghurt can be improved by the addition of small amounts natural or modified gums

c. Pregnant women are not at a higher risk for contracting food borne illness as elderly people do

d. Food borne disease outbreak is defined as the occurrence of 10 or more cases o similar illness resulting from the ingestion of a common food.

58. Heat treatment in yoghurt processing is associated with the following except

a) All but heat-resistant spores are eliminated

b) Improves the milk as a growth medium for the starter organisms by inactivating immunoglobins

c) Expels O2 to create a microaerophilic environment

d) Promotes interactions between whey or serum proteins and casein

59. Which of the following statements is true? The fermentation temperature of yoghurt

a. Compromise between the optima of the two starter organisms

b. it is the optimum for any one of the starter organisms

c. It is the optimum for the Streptococcus

d. It is the optimum for the Lactobacillus

60. Homogenization of yoghurt may improve all the following features except

a) Stability

b) Milk viscosity

c) Whitening the product

d) Separation of the fat component

61. Which of the following statements is true?

a) During the fermentation of yoghurt the Lactobacillus records faster growth in the early stages

b) The growth of Streptococcus is fastest

c) The two organisms grow at the same rate

d) The two organisms grow almost at the same rate with Streptococcus only slightly a shade ahead

62. Which is correct?

a. At the end of yoghurt fermentation, the populations of two starter organisms are roughly balance

b. Corynebacterium is one of the microorganisms associated with the slimy coats of fish

c. Poliomyelitis may be milk borne and this is the principal source of food borne polio

d. Tuberculosis is an example of disease which results from contamination of milk by human source

63. Which of the following statements is false?

a) Growth of Streptococcus in milk is limited by the availability of peptides and free amino acids which are present in relatively minute amounts

b) The proteolytic activity of Lactobacillus stimulate Streptococcal growth

c) The Streptococcus produces formate, pyruvate and CO; all of which stimulate the Lactobacillus

d) Yoghurt is a potentially hazardous food

64. Choose the correct statement among the following

a) The relationship between the two starter organisms in yoghurt is mutually favourable interaction but not completely interdependent

b) When the immune system reacts badly to a food substance either chemical or biological it is described as food allergy

c) Food home infection is an illness caused by eating food containing a chemical hazard or toxin

d) of the six factors required for bacterial growth, oxygen is the most important

65. The most important flavoring component of yoghurt which gives the correct yoghurt flavor is a/an

a. acetaldehyde

b. Diacetyl

c. Citrate

d. Diacetyl ester

66. The most important aciduric organism as far as the spoilage of fruit-containing yoghurt is concerned is

a) Wuyveromyces fragilis

b) Geotrichum sp

c) Saccharomyces cerevisiae

d) Mucor fruititis

67. Which of the following statements is false?

a) Yoghurt has better sensory appeal than acidophilus milk,

b) Lactobacillus acidophilus cells do not survive well in the acid product, dying out after few weeks storage at 5°C compared to the starter organisms in yoghurt

c) Extra care is required in the production of acidophilus milk, because it is more prone to contamination

d) Fermentation in yoghurt takes a longer period than fermentation in acidophilus milk

68. Which of the following dairy products is unique in terms of the distribution of the starter organisms in the product?

a) Kefir

b) Yoghurt

c) Koumiss

d) Acidophilus milk

69. Which of the following statements is false?

a) Kefir and koumiss are distinctive fermented milk produced by bacterial fermentation and an alcoholic yeast fermentation

b) The flavoring compounds in the products in (a) above are only and CO_2

c) Ethanol levels are lower in commercially prepared kefir than koumiss

d) Only yeast strains are involved in kefir production, moulds

70. Which of the following statements is false?

a) Koumiss were traditionally produced from mare's mill

b) Koumiss are generally more acidic that kefir

c) Koumiss also have a higher alcohol content than kefir

d) Mare's milk is preferred over cow's milk because of its higher fat content and a lower carbohydrate content

71. Starter organisms used for the production of buttermilk include the following except

a) Lactococcus lactis

b) Leuconostoc meseniorοides

c) Streptococcus

d) Lactococcus cremoris

72. Which of the following has the longest shelf life?

a) Acidophilus milk

b) Butter milk

c) Kefir

d) Koumiss

73. Which of the cheese varieties has the best keeping quality?

a) Cheddar

b) Camembertii

c) Mozzarella

d) Roquefortii

74. The starter organisms used in most cheese making are described as

a) Thermophilic

b) Mesophilic

c) Psychrophilic

d) Microaerophilic

75. Which is false?

a) The first step in cheese production is to ensure the milk in free form antibiotics and sanitizing agents

b) Unpasteurized milk comes out with a better flavor than the pasteurized

c) The difference between butter and cheese is only in their texture and flavor

d) The physical characteristics of cheese are far removed from that of the raw milk than other fermented milk

76. The beneficial effects claimed for LAB include.

a) Anticancer activity Mesophiles

b) Alleviation of diarrhoea

c) Alleviation of constipation

d) Alleviation of migrane

77. What is the central function of starter organisms in cheese making?

a) The fermentation of milk sugar to lactic acid

b) The stabilization of the colloidal suspension of casein

c) Shelf life and safety of the cheese

d) The release of calcium from casein micelles which facilitates the action of chymosin

78. Which of the following pathways/systems is not associated with cheese production?

a) Leloir pathway

b) Tagalose-6-phosphate pathway

c) Phosphoenol pyruvate system

d) Phosphoketolase

79. LAB are nutritionally fastidious and require preformed:

a) Nucleotide

b) Vitamins

c) Amino acids

d) Peptides

80. Which of the following statements is False?

a) One of the major preoccupation of a cheese maker is the risk of bacteriophage inhibition of fermentation

b) The problem of phage infections are not confined to cheese only, they affect production of yoghurt and meat as well.

c) Bacteriophage contamination during cheese fermentation slow down acidification

d) Hand sanitizers are a replacement for effective hand washing

81. Which among the following statements is true?

a) One of the main sources of phage contamination of cheese is thought to be from the starter culture

b) Alkaline foods require less heat treatment in killing microbes than in acidic ones

c) Almost all human pathogens are psychrotrophs

d) The causative agent of cholera is a gram-positive organism

82. The principal component of commercial starters for sausage is

a) Mould and nitrate reducing bacteria

b) LAB and nitrate reducing bacteria

c) Facultative heterofermentative lactobacilli

d) Yeast and Penicillin

83. Which of the following statements is false?

a) in the beer industry barley is preferred because the grain retains the husk which affords protection during storage

b) Barley also contains B-amylase which is essential for the rapid conversions of starch and dextrans

c) Saccharomyces cerevisiae is unable to ferment starch

d) Flat sour spoilage occurs chiefly in high acid vegetables

84. Which of the following statements is false

a) LAB are among the spoilage orgasms of beer

b) Lager yeast are described as top fermenters

c) Lager fermentation lasts longer compared to ale beer

d) Ale yeast and lager yeast can be distinguished by the ability of the lager to foment melibiose

85. The first stage of fermentation of vinegar involves

a) Anaerobic reaction

b) Aerobic reaction

c) Oxidative reaction

d) Phosphorylation reaction

86. Select the odd among the following based on the principal organisms responsible for the fermentation process

a) Vinegar

b) Tempeh

c) Soy sauce

d) Rice wine

87. The most extensively used procedure for bio-preservation of vegetables involve the use of

a) LAB

b) Mould

c) Yeast

d) Yeast and LAB

88. In today's world, the most desirable changes associated with fermentation which is timeless and even modern technologies have not been able to diminish with the ab of alternative preservation methods is

a) Shelf life

b) Safety

c) Sensory appeal

d) Nutritional transformation

89. The overwhelming majority of fermented food is specifically produced by the activity of which category of microorganism?

a) Bacteria/yeast

b) Moulds/bacteria

c) Yeast/virus/mould

d) Yeast and LAB

90. Which of the following statements is true?

a) LAB and Yeast grow better under conditions of low pH than moulds do

b) LAB and facultative yeast are the only microbes that prosper under anaerobic conditions

c) LAB does better under conditions of reduced water activity than moulds

d) The rods in yoghurt generally increase more rapidly than the coccus during storage

91. Which of the following is not a feature of LAB

a) They are non-sporing

b) They are gram positive bacteria

c) Aerotolerant aerobes

d) They lack porphyrins

92. Which of the following statements about LAB is false?

a) lack cytochrome

b) lack catalase

c) lack oxidase

d) They are aciduric

93. Which of the following statements about homofermenters is false?

a) they produce lactate as virtually a single product from the fermentation of glucose

b) they produce the enzyme phosphoketolase

c) they follow the EMP glycolytic pathway

d) they require hexose isomerase in the pathway

94. Which of the following is false about heterofermenters?

a) they produce roughly equimolar amounts of lactate ethanol acetate and CO_2 from pentose

b) they lack aldolase and transform hexose into pentose

c) the transformation of the hexose into pentose is solely a decarboxylation reaction

d) heterofermenters produce CO2 in glucose containing media

95. Which of the following statements is incorrect?

a) Obligate homofermenters ferment hexoses almost exclusively to lactate but is unable to ferment pentoses

b) the facultative heterofermenters ferment hexoses via the EMP pathway to lactate

c) Facultative heterofermenters have an inducible phosphoketolase which allow to ferment pentoses to lactate and acetate

d) Hexose fermentation by bifidobacteria follows the monophosphate pathway

96. The traditional genera of the LAB include the following except

a) Lactococcus

b) Pediococcus

c) Lactobacillus

d) Streptococcus

97. The Carnobacterium was extracted from the

a) Lactococcus

b) Streptococcus

c) Lactobacillus

d) Pediococcus

98. Which of the following statements is incorrect?

a) the most desirable feature of fermented products originally was safety

b) lactic acid and yeast dominate fermented products because they are a better under low pH

c) sun dried 'kokonte' is more nutritious than oven dried

d) mycoplasma are generally not important in food spoilage

99. Which of the following statements is correct?

a) When lactic acid and yeast occur together in food, they always act in concert to produce a product

b) When LAB and yeast occur together, one may play a role of spoilage

c) Yeast ferments starch in the initial steps of brewing

d) Homofermenters can be distinguished from heterofermenters by the ability of the homofermenters to produce CO2 in glucose-containing media

100. Which of the following statements is incorrect?

a) yeast is a spoilage organism in yoghurt

b) LAB is a spoilage organism in bread

c) yeast ferments lactose

d) meat compared to fish is more acidic in reaction

101. Which of the following statements is correct?

a) The most dominant yeast species in the tropics in the production of traditional fermented beverages where natural fermentation is allowed to occur, particularly, those produced from cereals is Schizosaccharomyces pombe

b) Debaryomyces is able to hydrolyse lactose and ferment galactose

c) the majority of fermentative yeast grow more effectively aerobically

d) Fermentation of cereals improves their stability

102. Which of the following statements is incorrect?

a) Saccharomyces cerevisiae is the most frequently encountered yeast in fermented beverages and foods based on fruits and vegetables

b) The presence of yeast in sauerkraut is often associated with spoilage

c) Fermentation confers a definite improvement in the nutritive value of meat

d) Yeast is a very strict taxonomic grouping

103. Which of the following statements is correct?

a) Khryvermyces mastanus is the only yeast that is able to hydrolyse lactose and ferment lactose

b) The presence of LAB in wine collaborate fermentation

c) The presence of LAB in soy sauce is often associated with spoilage

d) Wearing gloves when handling food is preferred over hand washing

104. Which of the statements about heterofermenters is false?

a)They lack aldolase

b) The triose phosphate is converted to lactate by the same sequence of fermentation as occur in glycolysis

c) They produce equimolar amount of lactate, CO_2, and ethanol

d) The glucose is cleared into glyceraldehydes pluspate and acetyl phosphate

105. Mesophilic starter culture for cheese include.....

a) Streptococcus

b) Lactobacillus helticus