1. The indicator organism for pasteurized milk is
(a) Mycobacterium tuberculosis
(b) Coxiella burnetii
(c) Clostridium butulinum
(d) Salmonella typhi

2. Asepsis means
(a) Absence of micro-organisms
(b) Absence of air
(c) Absence of moisture
(d) Absence of light

3. Which among the following is a source of thickening agent
(a) Lecithin
(b) Guar gum
(c) GMS
(d) Sodium nitrite

4. The acid present in carbonated drink is
(a) Citric acid
(b) Carbonic acid
(c) Phosphoric acid
(d) all

5. Carageenan is obtained from
(a) Brown algae
(b) Green algae
(c) Red algae
6. Which gas is responsible for the ripening of fruits
(a) O₂
(b) CO₂
(c) C₂H₄
(d) N₂

7. Tea is the national drink of
(a) China
(b) Sri Lanka
(c) India
(d) Nepal

8. Extensibility of dough is attributed to
(a) Globulin
(b) Gliadin
(c) Glutenin
(d) Albumin

9. Elasticity of dough is due to
(a) Glutenin
(b) Globulin
(c) Albumin
(d) Gliadin

10. The allergic disease due to consumption of gluten containing food products is
(a) Parkinson's disease  
(b) Celiac disease  
(c) Phenylketonuria  
(d) None

11. A clear drink having 30% TSS is  
(a) Nector  
(b) Juice  
(c) **cordial**  
(d) Squash

12. Scientific name of rice is  
(a) **Triticum aestivum**  
(b) Zea mays  
(c) Oryza sativa  
(d) Hordeum vulgare

13. Salt balance theory was given by  
(a) Peebles  
(b) Somer & Hart  
(c) Fischer  
(d) None

14. Flavor which is not easily detectable is  
(a) Salty  
(b) Bitter  
(c) Umami  
(d) Sweet
15. The microwave frequency used in food processing are (a) 215 & 915 MHz 
(b) 915 & 2450 MHz 
(c) 215 & 2450 MHz 
(d) 415 & 2450 MHz

16. Canning is also known as 
(a) Appertization 
(b) Pasteurization 
(c) Irradiation 
(d) Vacreation

17. Isoelectric point of milk protein is 
(a) 2.6 
(b) 3.6 
(c) 4.6 
(d) 5.6

18. The platform test done to check the milk quality is 
(a) COB test 
(b) Alcohol test 
(c) Acidity 
(d) all

19. Which of the following is a curing agent 
(a) Sodium Nitrite 
(b) Sodium nitrate 
(c) Salt 
(d) all
20. Indicator of faecal contamination of water is
(a) Salmonella
(b) E.Coli
(c) both
(d) none

21. Yoghurt contains
(a) Yeast
(b) Mold
(c) Bacteria
(d) All

22. Black spots in meat is due to
(a) Penicillium
(b) Candida
(c) Cladosporium
(d) Rhizopus

23. Semolina is obtained from
(a) Triticum compactum
(b) Triticum aestivum
(c) Triticum durum
(d) none

24. The deficiency of niacin causes
(a) Scurvy
(b) Beri-beri
(c) Pellagra
25. Which of the following is a proteolytic enzyme
   (a) Ficin
   (b) Papain
   (c) Actinindin
   (d) all

26. Enzyme used in cheese manufacturing is
   (a) Rennin
   (b) Zymase
   (c) Peroxidase
   (d) none

27. Fat content in economy ice cream is
   (a) 5%
   (b) 10%
   (c) 20%
   (d) 30%

28. Beta glucan, a soluble fiber is present in
   (a) Oats
   (b) rice
   (c) Corn
   (d) Wheat

29. Yeast in bread making is responsible for
   (a) flavor of bread
   (b) loaf volume of bread
30. The triple point of water is
(a) 0.01° C and 4.58mm Hg
(b) 1° C and 4.58mm Hg
(c) 10° C and 4.58mm Hg
(d) 0.1° C and 4.58mm Hg

31. LT process for pasteurization of milk is at 63° C for 30 mins, HTST process
(a) 72° C/15 sec
(b) 72° C/15 min
(c) 75° C/15 sec
(d) 75° C/15 min

32. Aspartame, an artificial sweetener is made of
(a) Aspartic acid & valine
(b) Aspartic acid & phenylalanine
(c) Aspartic acid & histidin
(d) Aspartic acid & alanine

33. Waxy wheat has a low content of
(a) Amylose
(b) amyllopectin
(c) both
(d) none

34. Repiness in bread is due to
35. Antimicrobial component of milk is
(a) lysozyme
(b) lactose
(c) casein
(d) phospholipids

36. One cup of coffee has a caffenine content of
(a) 95 mg
(b) 55 mg
(c) 45 mg
(d) 75 mg

37. Caramelized flavor in milk due to
(a) Enzymatic browning
(b) Non-Enzymatic browning
(c) both
(d) none

38. The scum formation in pickles is due to the growth of
(a) Bacteria
(b) Virus
(c) Molds
(d) all
39. Which of the following maturing agent is no longer used in wheat flour maturation
   (a) **Potassium bromate**
   (b) Ascorbic acid
   (c) Azodicarbonamide
   (d) all

40. Flavor reversion in food is due to
   (a) **Linolenic acid**
   (b) Linoleic acid
   (c) Butyric acid
   (d) Stearic acid

41. The flavor of wine is not affected by
   (a) aging of wine
   (b) maturation of wine
   (c) type of wine
   (d) none

42. Colostrum has lower content of... than normal bovine milk
   (a) Lactose
   (b) Protein
   (c) Minerals
   (d) Vitamins

43. According to ICMR, 1 mcg of retinol is equivalent to
   (a) 1 mcg of beta carotene
   (b) 4 mcg of beta carotene
   (c) 6 mcg of beta carotene
44. Symba process utilizes...... wastes in SCP production
(a) Protein
(b) Starch
(c) Fat
(d) Mineral

45. Stoke's law is used to find out
(a) Terminal velocity
(b) Drag coefficient
(c) Surface tension
(d) Specific gravity

46. Carcinogenic compound formed in cured meat is
(a) Nitroso compound
(b) Ketonic compound
(c) carbonyl compound
(d) none

47. Which container should not be used for wine maturation
(a) New oak
(b) Old oak
(c) White oak
(d) all

48. Which of the following is not a universal taste
(a) Salt
(b) sweet
49. The deterioration of fat due to oxidation and hydrolysis is called
(a) Denaturation
(b) Decomposition
(c) Rancidity
(d) Saponification

50. Which of the following has a higher protein content among the following
(a) Sorghum
(b) Pearl Millet
(c) Maize
(d) Oats

51. Milk gets coagulated upon
(a) Increase in acidity
(b) Decrease in pH
(c) High heat treatment
(d) All

52. Which of the following is regarded as saccharifying enzyme
(a) Alpha amylase
(b) Beta amylase
(c) Both
(d) None

53. Which one is similar to functional foods
54. Which of the following is an example of natural emulsifier
(a) Honey
(b) lecithin
(c) carrageenan
(d) trisodium citrate

55. Which of the following is a Lab fermented product
(a) Yoghurt
(b) Kefir
(c) Sauerkraut
(d) all

56. Maximum microwaves absorbed by
(a) Water
(b) salt solution
(c) sugar solution
(d) salt & sugar solution

57. Pickles commonly contains
(a) Lactobacillus
(b) Lauconostoc
(c) Pediococcus
(d) all
58. Which of the following is mostly non-pathogenic
   (a) bacteria
   (b) yeast
   (c) mold
   (d) virus

59. Concept used for killing of most resistant spores of Clostridium botulinum in vegetables
   (a) 5D
   (b) 7D
   (c) 12D
   (d) 0.5D

60. Compound having flavour similar to banana
   (a) isoamyl acetats
   (b) ethyl butyrate
   (c) diacetyl
   (d) methyl anthranilate

61. Essential amino acid present in low amount in legumes
   (a) lysine
   (b) methionine
   (c) leucine
   (d) valine

62. Which of the following starch have lowest gelatinization temperature
   (a) potato
   (b) rice
63. Micro-organism responsible for production of vinegar from alcohol
(a) Aspergillus
(b) Acetobacter
(c) Bacillus
(d) Penicillium

64. Codex alimentarius means
(a) Food code
(b) Food law
(c) Food standard
(d) none

65. Which of the following has the highest calcium content
(a) Milk
(b) sorghum
(c) pearl millet
(d) rice

66. Paraboiling is done in case of
(a) Wheat
(b) rice
(c) corn
(d) sorghum

67. Which of the following is intrinsic factor for growth of micro-organism
68. The toughening of meat after slaughter is due to
(a) drying
(b) rigor mortis
(c) cold shortening
(d) none

69. Indicator enzyme for pasturization of milk is
(a) Lipase
(b) peroxidase
(c) alkaline phosphatase
(d) lactase

70. Which of the following is not a fat soluble vitamin
(a) A
(b) B
(c) D
(d) K

71. Annatto is obtained from
(a) Seeds
(b) leaf
(c) stem
(d) roots
72. Sal marina is obtained from
   (a) animal skin
   (b) **sea water**
   (c) salmon
   (d) plant

73. P in HACCP stands for
   (a) Prevention
   (b) Pollutants
   (c) **Points**
   (d) Peaks

74. SO2 is used in the milling of
   (a) Rice
   (b) wheat
   (c) **corn**
   (d) legumes

75. The process in which both dehusking and polishing are involved is
   (a) Husking
   (b) **Milling**
   (c) Paraboiling
   (d) none

76. After drying, the final moisture content of parboiled rice is
   (a) 20%
   (b) 14%
   (c) 18%
   (d) 25%
77. Which of the following fatty acid is most susceptible to rancidity
(a) lauric acid
(b) oleic acid
(c) linoleic acid
(d) stearic acid

78. FSSAI standards for total dissolved solids in packaged drinking water
(a) NLT 500mg/litre
(b) NMT 500mg/litre
(c) NLT 100mg/litre
(d) NMT 100mg/litre

79. Alternative for citric acid and tartaric acid in food flavor enhancer in beverages
(a) malic acid
(b) MSG
(c) potassium glutamate
(d) disodium guanylate

80. Rubber rollers in paddy husking works on the principle of
(a) friction
(b) pressure
(c) impact
(d) crushing

81. Emery coated rollers are used for
(a) legume milling
82. Which is not measurable
(a) pressure
(b) temperature
(c) momentum
(d) none

83. What happened to fruit, if it is stored at lower temperature than its optimum temperature
(a) chilling injury
(b) freezing injury
(c) frost injury
(d) none

84. Non-climacteric fruits are harvested at what % of ripening
(a) 75%
(b) 85%
(c) 95%
(d) 100%

85. Phytochemical absent in cereals (except oats)
(a) phytosterol
(b) cerotenoids
(c) saponins
(d) lignans
86. Protein not present in Cereals
(a) gliadin
(b) glutenin
(c) oryzenin
(d) casein

87. Best method for extraction of essential oils
(a) Super critical fluid extraction
(b) steam distillation
(c) solvent extraction
(d) expression

88. Instrument used for measuring apparent density of cereal grains
(a) single kernel characterization system
(b) extensiograph
(c) farinograph
(d) butyrometer

89. Latest milk packaging technique
(a) PET bottles
(b) glass bottles
(c) pouch
(d) cartons

90. Nisin is related to
(a) broad spectrum antibiotic
(b) narrow spectrum antibiotic
(c) broad spectrum bacteriocin
(d) narrow spectrum bacteriocin
91. Which of the following is used as indicator of starch conversion
(a) alpha-amylase
(b) beta-amylase
(c) diastase
(d) iodine

92. ........ are a class of carbohydrates derivatives formed when sugar are reacted with excess of phenylhydrazine
(a) osazones
(b) formaldehydes
(c) ozone
(d) organic acids

93. Zero energy cool chambers are related to
(a) storage
(b) 1 processing
(c) 2 processing
(d) 3 processing

94. Site of protein synthesis in cells is
(a) ribosomes
(b) mitochondria
(c) golgi body
(d) all

95. penetration of EM waves will be high at
(a) high frequency and high loss value
(b) high frequency and low loss value
96. Energy required to heat milk in comparison to water is
(a) 90%
(b) 96%
(c) 100%
(d) 107%

97. MFPO stands for
(a) Meat Food Products Order
(b) Meat Fruits Products Order
(c) Meat & Fowl Products Order
(d) None of these

98. EOPO Comes under
(a) Essential Commodities Act
(b) Meat Food Products Order
(c) Fruits Product Order
(d) None of these

99. AGMARK stands for
(a) Agricultural Grading and Marketing Act
(b) Agro Industry Grading and Marketing Act
(c) Agricultural Grading and Management Act
(d) None of these

100. BIS stands for
(a) Bureau of Indian Standards
(b) Bureau of International Standards
(c) Bureau of India Standards
(d) None of these
1. "AGMARK Act 1937" comes under-
   (a) Department of Consumer Affairs, Govt of India
   (b) Department of Agriculture and Corporation
   (c) Directorate of Marketing and Inspection
   (d) Department of Legal Metrology

2. what is the example of biological hazard?
   (a) Salmonella
   (b) Dirt
   (c) Cleaners
   (d) Antibiotics

3. What is HACCP system for?
   (a) Physical, Chemical and Biological Hazard
   (b) A systematic analysis of all steps and regular monitoring of the control points
   (c) Identifying the CCP’s including their location procedure and process
   (d) Accurately monitoring food Hygiene hazards

4. SPS under WTO stands for-
   (a) Standards Prevention and Specifications
   (b) Sanitary and Phytosanitary measures
5. Food Safety and Standards Act, 2006 - passed by Indian Parliament and notified on-
   (a) 24th July, 2006
   (b) 24th June, 2006
   (c) 24th August, 2006
   (d) 24th November, 2006

6. ISO 19011: 2011 Quality management system deals with-
   (a) Specifications with Guidance for use
   (b) Guidelines for performance improvements
   (c) Customer satisfaction
   (d) Guidelines for quality and/or environmental management systems auditing

7. Coffee is adulterated with
   (a) Saw dust
   (b) Chicory
   (c) Ghee
   (d) All of these

8. Sugar and salt act as preservatives by:
   (a) Killing micro-organism directly
   (b) Increasing the acid content of food
   (c) Increasing the water content of food
   (d) Binding water so it is not available for micro-organism
9. Out of these, which bacteria is found in processed/cured meat
(a) Moraxella
(b) Alcaligenes
(c) Pseudomonas
(d) Lactobacillus

10. How many act are repealed by Food Safety and Standards Act, 2006
(a) 4
(b) 7
(c) 5
(d) 8

11. Currently standards are present for which of the following?
   1. Packaged drinking water
   2. Piped drinking water
   3. Well and canal water
(a) 1,2
(b) 1
(c) 1,3
(d) All of the above

12. Which of the following is/are true about Potassium Bromate?
   1. Potassium Bromate is a category 2B carcinogen
   2. Potassium Bromate increases dough strength, leads to higher rising and uniform finish to baked products
   3. Food Safety Standard Authority of India (FSSAI) permits them up to 50 parts per million.
(a) 1,3
13. The mandate assigned to the Food Authority is
(a) lying down science based standards for articles of food
(b) To facilitate food safety
(c) To regulate manufacture, storage, distribution, sale and import of food
(d) All of the above

14. How many Scientific Panels have been constituted in the Food Authority?
(a) 16
(b) 7
(c) 9
(d) 5

15. Benefits of implementing HACCP/ISO 22000:
(a) A Preventive approach to food safety
(b) Reduces the need for need for and the cost of end product testing (c) Can help the identity process improvements and reduced customer complaints
(d) All of the above

16. Which of these is not an International Standards and statutes
(a) Codex Alimentarius Commission (CAC)
(b) European Union Standards (EU)
(c) Food and Agricultural Organization (FAO)
17. FSSAI is located in region with head office located at-
   (a) Hyderabad
   (b) Mumbai
   (c) Bangalore
   (d) New Delhi

18. ISO 9001:2008 Quality management systems deals with
   (a) Fundamental and vocabulary
   (b) Guidelines for performance improvements
   (c) Customer satisfaction
   (d) Requirements for quality management

19. As per definition for food under the Food Act in India, food does not include-
   (a) alcoholic Beverages
   (b) Caffeinated Beverages
   (c) chewing gum
   (d) chewing tobacco

20. As per Food Safety and Standards Act, FSMS stands for-
   (a) Food Security Managements System
   (b) Food Safety Managements System
   (c) Food Standards Managements System
   (d) Food Safety Mechanization System

21. As per Section 3 of Food Safety and Standards Act 2006, if a food article sold in the market contains any inferior or cheaper substances
whether wholly or partly which is injurious to health then such products can be called as-
(a) Sub-Standard
(b) Unsafe
(c) Misbranded
(d) Partly Sub-Standard

22. As per Section 22 of Food Safety and Standards Act 2006, Foods for special dietary uses or Functional foods or nutraceutical or health supplements does not include
(a) Botanical extracts
(b) Vitamin Supplements
(c) Parenterals
(d) Probiotics

23. Food authority may notify laboratories and research institutions accredited by NABL or any such accreditation agencies, wherein NABL stands for -
(a) National Accreditation Board for Laboratories
(b) National Accreditation Board for Testing Laboratories
(c) National Accreditation Board for Calibration Laboratories
(d) National Accreditation Board for Testing and Calibration Laboratories

24. Act/order which is not deemed after implementation of Food Safety and Standards Act, 2006
(a) Fruit Products Order, 1955
(b) Prevention of Food Adulteration Act, 1954
(c) Milk and Milk Products order, 1992
25. Analysis report format shall be followed by the food Analyst under the FSSR 2011 is -
   (a) Form VII A
   (b) Form VIII
   (c) Form V B
   (d) Form VI

26. Analysis report section of Food Analyst report does not contain one of the following
   (a) Test Methods used
   (b) Opinion on the sample
   (c) Measurements of uncertainty
   (d) Prescribed Standards

27. As per the provisions of Food Safety and Standards (Licensing and Registration of Food Business) Regulation 2011 which of the following is mandatory before slaughtering animals -
   (a) Stunning
   (b) Use of electric pods
   (c) Staining
   (d) Stripping

28. Packaging material Polyethylene (PE) bottles used for packaging of Drinking watershall conformsto the following BIS Standards
   (a) IS: 12252
   (b) IS: 10910
   (c) IS: 52122
29. The claim on "Trains fat free" is being permitted under Food Safety and Standards (Packaging and Labelling Regulation) under the condition if the Trans fat content less than
   (a) 0.05 gm per serving
   (b) 0.2 gm per serving
   (c) 0.1 gm perserving
   (d) 0.01 gm per serving

30. as per the requirements of Packaging and Labelling Regulation, Net Quantity for a food packed in liquid medium shall carry a declaration on
   (a) Liquid Weight
   (b) Drained Weight
   (c) Gross Weight
   (d) None of the above

31. Mandatory statement displayed on the pack of Infant milk Substitute is
   (a) "Baby requires Mother's Milk"
   (b) "Milk is the best source for the child"
   (c) "Mother's Milk is best for your baby"
   (d) "Mother's Milk is needed for your baby"

32. "Not for Phenylketoneurics" shall carry on the label if the product contains following table top sweetener
   (a) Aspartame
   (b) Acessulfame-K
33. Percentage of Milk fat and milk solids not fat contents for raw and pasteurized mixed milk in India are-
(a) 4.5 & 3.5 respectively
(b) 3.0 & 8.5 respectively
(c) 3.5 & 8.5 respectively
(d) 3.0 & 9.0 respectively

34. Baudouin test for Vanaspati (Hydrogenated fat) indicates the presence of
(a) sesame oil
(b) Mineral oil
(c) Vitamin A
(d) Trans fatty acid

35. Butyro refractometer reading at 40°C for milk fat always lies between-
(a) 44-46
(b) 30-34
(c) 40-44
(d) 34-36

36. Percent acidity as acetic acid for chilly sauce shall not be less than
(a) 1.2
(b) 1.5
(c) 0.6
(d) 1.0
37. Added colouring matter permitted for bread under section 2.4.15 of Food Safety & Standards (Food Product Standards and Food Additives) Regulations 2011 are-
(a) All water soluble colours
(b) Only natural colours
(c) **Only carryover food colours from ingredients**
(d) All oil soluble Colours

38. Test for Lead Chromate is conducted for the sample of
(a) Chilli Powder
(b) **Turmeric Powder**
(c) Coriander Powder
(d) Curry Powder

39. pH of packaged Drinking water shall be between
(a) 6.0 to 8
(b) 6.5 to 7.5
(c) 6.5 to 8.5
(d) 6.5 to 8.0

40. The International body that is involved in harmonize food standards around the world is
(a) World Health Organization
(b) **Codex Alimentarius Commission**
(c) International Standards Organization
(d) International Union of Food Standards

41. Expanded uncertainty is derived by multiplying the combined standards uncertainty with
42. If internal audit is not conducted as per the clauses of ISO 17025-2005, the auditor can issue
(a) Minor Non conformance
(b) Major Non conformance
(c) Improvement Notice
(d) Opportunity for Improvement

43. Which of the following are covered under proximate analysis of Foods?
(a) Proteins, Carbohydrates, Vitamins
(b) Proteins, Carbohydrates, fats
(c) Proteins, Sugar, Minerals
(d) Fats, Vitamins, Minerals

44. Food poisoning occurs due to inadequate processing or poor handling of processed food articles. The most dangerous food poisoning organism is
(a) salmonella typhosa
(b) Clostridium perfringeus
(c) Staphylococcus aureus
(d) Clostridium bolulinum

45. Auditors can gather objective evidence by
(a) Observing activities
46. A primary Standard is a
(a) substance dissolved in a known volume of water
(b) mass of a substance dissolved in a known volume of water
(c) substance that is reacted with substance whose concentration is known accurately
(d) pure substance that can be use to determine the concentration of other substance

47. NABL 212 is a
(a) The guidance document on Quality manual
(b) The guidance document on Validation of Test Method
(c) The guidance document on Quality audit
(d) None of above

48. The minimum intensity of light required at working surface other than those required for specified test is
(a) 50-lux
(b) 300-lux
(c) 500-lux
(d) 1000-lux

49. A signal to noise ratio (S/N) of........ is generally accepted for estimating LOD and signal to noise ratio of..... Is used for estimating LOQ
(a) 3 and 10
50. Bacterial contamination may cause food poisoning the condition required for bacterial growth are
(a) moisture, cold Temperature, time, food supply, low acid environment, oxygen
(b) moisture, high temperature, time, food supply, low acid environment, oxygen
(c) moisture, warm Temperature, time, food supply, low acid environment, oxygen
(d) moisture, cold Temperature, time, food supply, high acid environment, oxygen

51. In food safety and standard (food products standard and additive ) regulations 2011, the antibacterial polypeptide which is permitted as a Preservative in cheese and cheese products is
(a) nukacin
(b) nisin
(c) bisin
(d) lysozyme

52. A method of drying in which the moisture in the food is frozen, and then sublimed to vapour under vacuum is called as-
(a) Sun drying
(b) Lyophilization
(c) Spray drying
(d) Drum drying
53. Enzymes which are mainly used in clarification of fruit juices are
(a) Pectinases and pectinesterases
(b) Hemicellulases
(c) Cellulases
(d) Amylases

54. Packaging of a food is a method of
(a) Food adulteration
(b) Food preservation
(c) Food irradiation
(d) None of the above

55. Molecular weight of a polymer can be calculated if you know
(a) Degree of polymerization (DP)
(b) Molecular weight of repeating units
(c) Either (a) or (b)
(d) Both (a) or (b)

56. The sum of all mobile packaging components (molecules) released per unit area packaging material under defined conditions is called
(a) Specific migration
(b) Overall migration (global migration)
(c) Diffusion
(d) Non-migration

57. For easy identification, most plastic containers are marked with a recycling symbol containing a specific number. What is the specific number given for Low Density Poly Ethylene (LDPE)?
(a) 2
58. The essential nutrients that the body required for normal growth and metabolism, apart from water, protein, carbohydrate and fats are
(a) Minerals  
(b) Vitamins  
(c) Neither (a) nor (b)  
(d) Both (a) and (b)

59. The two essential fatty acids that are required are
(a) Linoleic and oleic acid  
(b) Linoleic and palmitic acid  
(c) Linoleic and α-linolenic acid  
(d) palmitic and oleic acid

60. The preferred 'best' method for determining the protein quality is
(a) True protein digestibility  
(b) protein efficiency ratio (PER)  
(c) PDCAAS  
(d) Amino acid Score

61. In animal feeding experiments, the weight gained (in grams) per gram of protein consumed is called as
(a) Net protein ratio (NPR)  
(b) protein efficiency ratio (PER)  
(c) Net protein utilization (NPU)  
(d) Biological value (BV)
62. In the mitochondrial Electron Transport Chain (ETC), electron pairs carried by NADH produce........number of ATP molecules.
   (a) 2.5  
   (b) 4.5  
   (c) 1.5  
   (d) 5.5  

63. Any representation which states, suggest or implies that a food has particular nutritional properties which are not limited to energy value is termed as
   (a) Health Claims  
   (b) riskreduction  
   (c) Nutrition claim  
   (d) None of the above  

64. Packed foods containing monosodium glutamate (MSG) shall carry the label declaration
   1) Contains added MSG  
   2) Not recommended for infants below 12 months  
   3) Not for Phenylketoneurics  
   4) Not for lactose intolerant infants (a)
   (a) 1,2,& 3  
   (b) 1,2,& 4  
   (c) 1,3,& 4  
   (d) 1, & 2  

65. What is the date that signifies the end of the period under any stated storage conditions, during which the foods shall remain fully marketable and shall retain any specific qualities for which tacit or
express claims have been made, and beyond that date the food may still be perfectly safe to consume, through its quality may have diminished?
(a) Use-by date
(b) **Best before use**
(c) Recommended last consumption date
(d) expiry date

66. The following type of food processing is referred to as 'cold sterilization'
(a) Adding permitted preservatives
(b) Just boiling treatments
(c) **Irradiation**
(d) Concentration under vacuum

67. The antifungal agent permitted for use in Fruit jam by FSSR is:
(a) **Benzoates**
(b) Glacial acetic acid
(c) Vinegar
(d) Nisin

68. The following is not a good source of Vitamin D in our diet
(a) Spinach
(b) Milk
(c) Sunlight
(d) **Pineapple**

69. According to FSSR, vitamin A in food product added externally with such vitamin should be analyzed only using following method:
(a) Carr- Price method
(b) Fluorospectrometry
(c) Gas-Liquid chromatography
(d) High Pressure Liquid Chromatography

70. As per FSSA in packaging requirements for fruit and vegetables products, juices and pulps may be packed in the following type of container, when sulphited.
(a) Wooden barrels
(b) Tin plate containers
(c) Wooden baskets
(d) Aluminium tins

71. As per FSSR, the nutritional Information per 100 g/100 ml or per serving of the product given on the label shall not contain the followings:
(a) Energy value in kcal
(b) Amount of protein, carbohydrate and fat in g or ml
(c) The amount of other nutrient for which allergic potential is declared
(d) The amount of other nutrient for which health claim has been made

72. The following method is an effective technique to preserve perishable chilled foods without resorting to heat processing or chemical preservatives
(a) Modified Atmospheric Packaging
(b) Bactofugation
(c) Stassanization
73. The maximum dosage of irradiation permitted for mango by FSSR is:
(a) 0.09 KGy
(b) 0.75 KGy
(c) 0.09 Rad
(d) 0.75 Rad

74. Yeasts and moulds that are capable of growth at or below a water activity \( (a_w) \) of 0.85 are known as:
(a) Xerophilic fungi
(b) Xerophilic Rickettsiae
(c) Xerophilic bacteria
(d) Zanophilic fungi

75. The following food is not considered as a major food allergen (among top eight)
(a) Milk
(b) Egg
(c) poultry
(d) Peanut

76. Potentially hazardous foods must be maintained ad 'safe temperatures'. 'Safe temperatures' mean:
(a) Between 5 degrees Celsius and 60 degrees Celsius
(b) 5 degrees Celsius or below and 60 degrees Celsius or above
(c) at a temperature that will not cause trauma to the plate (mouth) and will not compromise the nutritional value of the food
77. What do you need to know applied cleaning agents?
(a) All cleaning agents in the food-processing industry are of different composition, therefore, this is not relevant
(b) All cleaning agents in the food-processing industry have the same composition, so they are easier to handle.
(c) Cleaning agents in the food-processing industry are of different composition therefore, knowledge of their properties is required, e.g. material safety data sheets.
(d) Cleaning agents used are only detergents.

78. Sanitation is vital to disease control and cleanliness. Which of the following statements regarding sanitation programs is TRUE?
(a) The most important aspect on sanitation is the commitment to producing safe, wholesale products in a clean plant environment.
(b) The commitment to sanitation must be communicated to all employees.
(c) The sanitation program's top priority should be to communicate to all employees the necessity and importance of proper cleaning and sanitation practices.
(d) All of the above

79. An example of critical control point is
(a) Dicing Raw Ingredient for the preparation of soup mix.
(b) Reviewing the source of raw ingredient for a food product.
(c) Cooking a raw food product to the critical limit.
(d) Serving the finished, ready-to-eat product.
80. Confirming that the process and Critical Control Point (CCPs) are under control is also known as validation. An example of validating a pre-requisite program is
(a) Reviewing Food Defense procedures for a food plant.
(b) Swab testing of equipment after cleaning and sanitation procedures have been finished
(c) Microbiological testing for pathogens in a finished food product
(d) Taste testing a finished food product for consumer preferences

81. Verification involves being able to confirm that HACCP elements are working properly. Which of the following is NOT a method used for verification:
(a) Random sampling
(b) Microbiological testing
(c) Performing a mock recall
(d) Chemical testing

82. The Codex Alimentarius Commission (CAC) was established
(a) by the Food and Agricultural Organization of the United Nations (FAO)
(b) by the World Health Organization (WHO)
(c) Both of the above
(d) Neither of the above

83. Which of the following Joint FAO/WHO expert scientific committees deals with food born parasites?
(a) JECFA
(b) JMPR
(c) JEMRA
84. Consider the following statements
   1. Technical Barriers to Trade (TBT) are the category of non-tariff barriers to trade under the WTO agreements.
   2. TBT have the greatest impact on agriculture due to sanitary and phytosanitary measures designed to protect humans, animals, and plants, from diseases, pests, and other contaminants.
Which of the statements given above is/are correct?
(a) Only 1  
(b) Only 2  
(c) Both 1 & 2  
(d) Neither 1 nor 2

85. Which microbiological criteria are applicable in a robust Food safety Management System?
(a) Food safety criteria  
(b) Process hygiene criteria  
(c) Only B  
(d) Both A & B

86. Which of the listed organizations in the supply chain can implement ISO 22000?
   1) food manufacturing, 2) food ingredient manufacturing, 3) food additives manufacturing, 4) transportation of food, 5) packaging of food, 6) retail or wholesale dealer, 7) Restaurants, 8) food equipment production
(a) All of the above excluding 2 and 3  
(b) All of the above excluding 4,5 and 8
87. The family Enterobacteriaceae are useful indicator organism to monitor food
(a) Hygiene
(b) Contamination
(c) A & B
(d) Neither A & B

88. Codex has prescribed General principles of Food Hygiene
(a) For different Food Groups
(b) Only general guidelines
(c) A general and food group specific guidelines separately
(d) None of these

89. Allergen control in food will fall under
(a) CCP
(b) PRP
(c) GMP
(d) None of the above

90. Aflatoxins are highly toxic and carcinogenic chemical substances produced by Aspergillus spp. on variety of agricultural commodities and found at highest level in
(a) groundnut
(b) wheat
(c) barley
(d) pearl millet
91. Oleoresins are prepared from
(a) Basil
(b) cardamom
(c) celery
(d) all

92. Which of the following is a liquefying enzyme
(a) Alpha amylase
(b) pectinase
(c) protease
(d) cellulose

93. The major portion in cholesterol is that of
(a) LDL
(b) HDL
(c) CDL
(d) Ferritin

94. Which one is not a Class I preservatives
(a) Salt
(b) sugar
(c) acetic acid
(d) benzylic acid

95. Yellow color of cow milk is due to
(a) carotene
(b) riboflavin
(c) annatto
96. An efficient method of drying milk is
(a) spray drying
(b) drum drying
(c) freeze drying
(d) cabinet drying

97. The pungency of chilli is due to presence of
(a) capsaicin
(b) capsicin
(c) capcisin
(d) capcaisin

98. Staling of bread is due to
(a) retrogradation
(b) gelatinization
(c) fermentation
(d) none

99. The grain size can be enlarged by
(a) gibberellic acid
(b) auxin
(c) fumaric acid
(d) all

100. The fruits affected by ethylene gas
(a) climacteric
(b) non-climacteric
(c) both  
(d) none
1. Fat and SNF standards for double toned milk are (a) 1.5% and 8.5%  
   (b) 1.5% and 9.0%  
   (c) 3.0% and 8.5%  
   (d) 3.0% and 9.0%

2. Consumer protection bill came in (a)  
   1985  
   (b) 1993  
   (c) 2006  
   (d) 2015

3. How many net ATP generated in glycolysis  
   (a) one  
   (b) two  
   (c) four  
   (d) six

4. Red not disease is found in which of the following crop  
   (a) Wheat  
   (b) pearl millet  
   (c) mustard  
   (d) sugarcane
5. Study of air-water vapor environment is called
   (a) psychrometrics
   (b) psychometric
   (c) psycometry
   (d) gas-hydrometry

6. Full form of OHSAS
   (a) Operational Hurdle and Sanitation Analysis System
   (b) Operational Health and Sanitation Assessment Series
   (c) Occupational Hurdle and Sanitation Analysis System
   (d) Occupational Health and Safety Assessment Series

7. Which of the following is not an end product of glycolysis
   (a) pyruvate
   (b) NADH
   (c) ATP
   (d) Glucose

8. The amount of energy required to raise the temperature of one mole or gram of a substance by one degree Celsius without any charge of phase
   (a) specific heat
   (b) latent heat
   (c) enthalpy
   (d) none

9. Force during cutting is
   (a) frictional force
   (b) shear force
10. Anti nutritional factor in egg is
(a) avidin
(b) saponin
(c) phytate
(d) tannin

11. Fat and SNF standards for double toned milk are (a) 1.5% and 8.5%
(b) 1.5% and 9.0%
(c) 3.0% and 8.5%
(d) 3.0% and 9.0%

12. Flour of whole cereals contains
(a) soluble fiber
(b) insoluble fiber
(c) both
(d) none

13. An antioxidant found in milk is
(a) lactoferrin
(b) lecithin
(c) casein
(d) lactose
14. A ton of refrigeration is defined as the quantity of heat required to be removed from one tonne of ice within........hour when the initial condition of water is 0° C.
   (a) 1 hour  
   (b) 6 hours  
   (c) 12 hours 
   (d) 24 hours

15. Thermal death time is defined as the time required to kill a population of the target microorganism in a water-based solution at a given temperature is also known as
   (a) D-value  
   (b) F-value  
   (c) Z-value  
   (d) T-value  

16. Ohmic heating is also known as
   (a) Joule Heating 
   (b) Electrical Resistance Heating 
   (c) both 
   (d) None

17. Hormone controlling blood sugar levels is
   (a) Ptylin 
   (b) Insulin 
   (c) Epinephrine 
   (d) Glucagon
18. Electromagnetic radiation in the range of wavelengths 400-700nm is called
   (a) Visible light
   (b) UV light
   (c) IR light
   (d) NIR radiations

19. Frequency used in microwave heating is
   (a) 915 MHz
   (b) 2450 MHz
   (c) both
   (d) none

20. Which of the following is meat tenderizer enzyme
    (a) Papain
    (b) Bromelain
    (c) both
    (d) none

21. Which of the following is most important for the success of a new food product in the market?
    (a) Product's composition
    (b) Packaging
    (c) Sensory
    (d) Marketing

22. Boiling point of milk is
    (a) 93.5°C
    (b) 97.8°C
23. Vitamin having anti-oxidant properties
   (a) Vitamin A
   (b) Vitamin B
   (c) Vitamin C
   (d) Vitamin D

24. Which of the following is fat soluble Vitamin
   (a) retinol
   (b) thiamine
   (c) riboflavin
   (d) ascorbic acid

25. Which of the following is not a tetrose
   (a) erythrose
   (b) threose
   (c) erythulose
   (d) ribose

26. Which of the following is a measure of central tendency
   (a) mean
   (b) mode
   (c) median
   (d) all options

27. Highest cereal producing countries are
28. Major crop of India in terms of production is
(a) rice
(b) wheat
(c) barley
(d) pearl millet

29. Which of the following natural preservative is used in various food products for increasing shelf life and inhibiting growth of bacteria
(a) ascorbic acid
(b) sorbic acid
(c) nisin
(d) propionate

30. Which of the following is used for preservation of cake and other baked products
(a) sorbic acid
(b) calcium propionate
(c) both
(d) none

31. Cheese prepared using skim milk is
(a) cottage cheese
(b) ricotta cheese
(c) parmesan
32. HTST pasteurization of milk is carried out at
   (a) 71.7°C for 15 sec
   (b) 71.7°C for 30 sec
   (c) 62.8°C for 15 sec
   (d) 62.8°C for 30 sec

33. Phosphatase test is done to check the adequacy of
   (a) balancing
   (b) pasteurization
   (c) parboiling
   (d) sterilization

34. Cryovac is related to
   (a) food packaging
   (b) food processing
   (c) pasteurization
   (d) all options

35. Dry ice is also known as
   (a) liquid nitrogen
   (b) solid nitrogen
   (c) solid CO₂
   (d) liquid CO₂

36. Cheese is the dairy product prepared with the help of
   (a) rennet
   (b) recombinant chymosin
37. The hurdle included in hurdle technology is
(a) temperature
(b) water activity
(c) redox potential
(d) all options

38. Leuconostoc mesenteroides produce ..... acid in Sauerkraut
(a) lactic acid
(b) citric acid
(c) acetic acid
(d) fumaric acid

39. Which of the following is a fumigant causes ozone depletion
(a) methyl bromide
(b) chloropicrin
(c) formaldehyde
(d) iodoform

40. Aflatoxin is a poison produced by
(a) Aspergillus niger
(b) Aspergillus flavus
(c) Aspergillus affinis
(d) Aspergillus fumigatus
41. T. A. spoilage is caused by thermophilic anaerobes that produce acid and gas in low-acid goods. *Clostridium thermosaccharolyticum*, an obligate thermophile, causes spoilage. The cans swell due to
(a) CO$_2$
(b) H$_2$
(c) both
(d) none

42. Sorbic acid is most active at pH
(a) 4.4
(b) 5.5
(c) 6.5
(d) 7.0

43. pH of moderate acid foods (a)
4.5-5.0
(b) 5.0-5.5
(c) 5.5-6.0
(d) 6.0-6.5

44. Which of the following fatty acids is essential for humans
(a) linolenic acid
(b) linoleic acid
(c) both
(d) none

45. EPA and DHA, both are present in
(a) cotton seed oil
(b) corn oil  
(c) fish oil  
(d) mustard oil

46. Which of the following contains highest amount of vitamin C  
(a) Barbados cherry  
(b) guava  
(c) amla  
(d) pomegranate

47. Eggshell is made almost entirely of ...... crystals  
(a) calcium carbonate  
(b) calcium hydroxide  
(c) calcium chloride  
(d) calcium phosphate

48. Hard wheat is different from soft because of difference in its  
(a) protein content  
(b) endosperm structure  
(c) damaged starch content  
(d) all options

49. Which of the following contains highest fat content  
(a) cookies  
(b) avocado  
(c) whipping cream  
(d) milk powder

50. Pycnometer is used for measurement of
(a) specific gravity  
(b) pH  
(c) humidity  
(d) fat content  

51. Refractometer is used to measure  
(a) acid/bric ratio  
(b) acidity  
(c) TSS  
(d) water activity  

52. Which of the following is the strongest bond  
(a) ionic  
(b) covalent  
(c) hydrogen  
(d) vanderwall  

53. Force of attraction between similar molecules is called .... forces.  
(a) cohesive  
(b) adhesive  
(c) vanderwall  
(d) shear  

54. ....... is used to extend the shelf life of fruits and vegetables  
(a) ethylene  
(b) calcium carbonate  
(c) gibberellic acid  
(d) all
55. Moisture content for paddy storage is less than....% for grain storage
   and less than....% for long term seed preservation
   (a) 14% & 9%
   (b) 9% & 14%
   (c) 14% & 12%
   (d) 12% & 9%

56. Paraboiling of paddy increases its
   (a) vitamins
   (b) minerals
   (c) both
   (d) none

57. Which of the following is a non-newtonain fluid
   (a) fruit juice
   (b) tomato ketchup
   (c) water
   (d) all

58. Tomato Ketchup is a
   (a) bingham fluid
   (b) pseudoplastic
   (c) rheopectic
   (d) all

59. The quality of egg is checked by
   (a) water activity meter
   (b) candling
   (c) senn's process
60. Which of the following functions in fruits and vegetables
(a) shelf life
(b) imparts glossiness
(c) prevents dehydration of fresh fruits and vegetables
(d) all

61. Black bread mold (Rhizopus stolonifer) is a widely distributed mucoralean mold found on bread surfaces.
(a) thread-like
(b) dotted
(c) both
(d) none

62. Instant coffee is packaged in
(a) Aluminum oil
(b) PET
(c) AL+PET
(d) PP

63. Which of the following is ethylene scavenger
(a) CaCO₃
(b) KMnO₄
(c) KCl
(d) none

64. Mineral water is packaged in
(a) PE
65. Carrageenan is extracted from
   (a) red seaweeds
   (b) blue seaweeds
   (c) green seaweeds
   (d) algae

66. The hardening of the surface during drying regarded as
   (a) dry surface
   (b) hard surface
   (c) case hardening
   (d) none

67. Which one is the sweetest sugar
   (a) sucrose
   (b) glucose
   (c) fructose
   (d) dextrin

68. The thickness of starch paste is due to
   (a) amylose
   (b) amylopectin
   (c) dextrin
   (d) amylase

69. Chemical that reduces the surface tension
70. Which is responsible for the umami taste
(a) aspartic acid  
(b) citric acid  
(c) butyrate  
(d) glutamate

71. The category of food which help in the prevention and cure of diseases
a) Pharmaceuticals  
b) Nutraceuticals  
c) Medical Food  
d) All

72. Fat blooms in chocolates is caused by
(a) Dehydration of surface  
(b) High temperature  
(c) Both  
(d) None

73. Respiratory quotient of protein is
(a) 0.5  
(b) 0.7  
(c) 0.8
74. Sugar bloom in chocolates is caused by
   (a) High sugar content
   (b) Moisture on surface
   (c) Both
   (d) None

75. The process of extracting a substance from a solid material that has come into contact with a liquid
   (a) Sublimation
   (b) Expression
   (c) Comminution
   (d) Leaching

76. Packaging tests include
   (a) Bursting strength
   (b) Compression test
   (c) WVTR
   (d) All

77. Spray drying involves removal of moisture from food material by
   (a) Atomization
   (b) Evaporation
   (c) Both
   (d) none

78. Liquid is forced to flow in upward direction in
   (a) rising film evaporator
79. Which one has low density
(a) VDL  
(b) HDL  
(c) LDL  
(d) all

80. Process that involves covering a confection or snack with chocolate or other materials
(a) coating  
(b) enrobing  
(c) conching  
(d) none

81. Irradiation is the process of exposing a material to ionizing whose source is photons (γ-rays, x-rays), or high energy electrons,
Commonly, γ-rays are produced by radioactive isotope
(a) cobalt-60  
(b) cesium-137  
(c) both A & B  
(d) none

82. In heat transfer at a boundary (surface) within a fluid, the ratio of convective to conductive heat transfer across (normal to) the boundary is known as
83. Dimensionless number approximating the ratio of momentum diffusivity (kinematic viscosity) and thermal diffusivity is known as
(a) nusselt number
(b) prndtl number
(c) Sherwood number
(d) Reynolds number

84. The ratio of the total rate of mass transfer to the rate of diffusive mass transport alone
(a) nusselt number
(b) prndtl number
(c) Sherwood number
(d) Reynolds number

85. Incorporation of air into cream is known as
(a) whipping
(b) feathering
(c) aeration
(d) enrobing

86. Dimensionless that gives a measure of the ratio of inertial forces to viscous forces for given flow condition
(a) nusselt number
(b) prndtl number
87. 100 g of spirulina has......... G of protein
(a) 27
(b) 37
(c) 47
(d) 57

88. Which of the following cow breed gives highest milk
(a) holstien
(b) jersey
(c) Brangus
(d) shorthorn

89. Highest egg laying chicken breed
(a) white leghorn
(b) Plymouth Rock
(c) Ancona
(d) barnevelder

90. Respiratory quotient of carbohydrate is
(a) 0.5
(b) 0.7
(c) 0.8
(d) 1.0

91. World food day is celebrating on
(a) 15th sep.
92. BMI stand for
(a) bone muscleindex
(b) bone massindex
(c) body muscleindex
(d) body mass index

93. Which is responsible for bitter flavor of beer
(a) yeast
(b) alcohol
(c) hopes
(d) flavoring agents

94. Microorganisms that can grow at refrigerator temperature
(a) thermophiles
(b) mesophiles
(c) psychrophiles
(d) zerophiles

95. Heat stability of milk can be assessed by
(a) acidity test
(b) alcohol test
(c) MBR test
(d) Phosphatase test
96. Maillard reaction in milk upon heating is responsible for .... flavor in milk.
   (a) bitter
   (b) salty
   (c) caramelized
   (d) sweet

97. Good quality cakes can be prepared using wheat varieties
   (a) soft wheat
   (b) hard wheat
   (c) durum wheat
   (d) all

98. Which of the following is most economical evaporator
   (a) single effect
   (b) double effect
   (c) triple effect
   (d) 4-effect

99. Acid produced in sauerkraut is
   (a) acetic acid
   (b) citric acid
   (c) lactic acid
   (d) fumaric acid

100. Increase in volume of dough is due to
    (a) gluten formation
    (b) CO₂ gas
    (c) baking
(d) all
Q 1. Fat and SNF standards for buffalo milk are
a. 1.5% & 8.5%
b. 4.5% & 8.5%
c. 6.0% & 8.5%
d. 6.0 & 9.0%
Q 2. Base material used for beer making is
a. Wheat
b. Rice
c. Barley
d. Sugarcane
Q 3. Dole process is related to
a. Aseptic canning
b. Blanching
c. Comminution
d. Ohmic heating
Q 4. Egg whites are rich source of
a. Vitamin D
b. Zinc
c. Selenium
d. All
Q 5. Yellow colour of Egg yolk is due to
a. Lutein
b. Zeaxanthin
c. Both
d. None
Q 6. Zein is principal protein of which crop
   a. Wheat
   b. Mustard
   c. Corn
   d. Sesame

Q 7. Can treated with acid-resistant lacquer cans are also known as
   a. A-enamel
   b. C-enamel
   c. R-enamel
   d. None

Q 8. Minimum expansion of water occurs in
   a. Slow freezing
   b. Blast freezing
   c. IQF
   d. All

Q 9. Celiac disease is related to
   a. Oryzin
   b. Gliadin
   c. Zein
   d. Hordein

Q 10. Salometer is used to measure the strength of
   a. Brine solution
   b. Sugar solution
   c. Acid solution
   d. Alkali solution

Q 11. Who is considered as “father of canning”
   a. Robert Hooke
   b. Louis Pasteur
   c. Nicholas Appert
Q 12. Compound responsible for antimicrobial activity of clove is
   a. Eugenol
   b. Cinnamaldehyde
   c. Camphene
   d. Terpineol

Q 13. Characteristics of bakery fat is
   a. Low melting
   b. High melting
   c. Sharp melting
   d. All

Q 14. Function performed by nitrates in cured meat
   a. Pink colour
   b. Prevent spoilage
   c. Both
   d. None

Q 15. Time temperature combination used for milk pasteurization
   a. 63 degree/30 min
   b. 63 degree/15 min
   c. 72 degree/30 min
   d. 72 degree/15 min

Q 16. Which one is present in highest amount in finger millet (ragi)
   a. Thiamin
   b. Niacin
   c. Iron
   d. Calcium

Q 17. Cider is prepared from
   a. Wheat
   b. Barley
Q 18. Meat fat is rich in
   a. Saturated fat
   b. Unsaturated fat
   c. Both
   d. None

Q 19. Common adulterant in black pepper is
   a. Brick sand
   b. Papaya seed
   c. Urea
   d. Pomegranate seeds

Q 20. TSS in jam as per FSSAI
   a. NLT 60
   b. NMT 60
   c. NLT 65
   d. NMT 65

Q 21. Which one is not available for fermentation by yeast during bread making
   a. Glucose
   b. Amylose
   c. Starch
   d. None

Q 22. In food industry, rotameter is used to measure
   a. Viscosity
   b. Flow rate
   c. Rpm
   d. All

Q 23. TQM stand for
Q 24. Fat standards for double toned milk is a. 0.5%
   b. 1.5%
   c. 3.0%
   d. 6.0%

Q25. Diet containing_____________is helpful in controlling pellagra
   a. Cauliflower
   b. Cabbage
   c. Both
   d. None

Q 26. Mold growth in bread is due to
   a. Rhizopus stolonifera
   b. Rhizopus oryzae
   c. Aspergillus niger
   d. Aspergillus oryzae

Q 27. Saffron is obtained from which portion of the plant
   a. Seed
   b. Stigma
   c. Sepal
   d. Petal

Q 28. Food poisoning is caused by
   a. Salmonella
   b. Lactobaccillus
   c. Pencillium
   d. Candida
Q 29. Marasmus is caused due to deficiency of
   a. Vitamin
   b. Minerals
   c. Protein
   d. Fat
Q 30. Freezing has most pronounced effect on which of the following attribute of fruits and vegetables.
   a. Color
   b. Flavor
   c. Texture
   d. Taste
Q 31. Rotavane is used in teas processing for
   a. Withering
   b. Rolling
   c. Fermentation
   d. Drying
Q 32. Each degree of salinometer scale corresponds to
   a. 0.265% NaCl
   b. 2.65% NaCl
   c. 12.65% NaCl
   d. 26.5% NaCl
Q 33. Consumer protection act came in year a.
   1973
   b. 1986
   c. 1993
   d. 2006
Q 34. Base material used for rum making is
   a. Wheat
   b. Rice
Q 35. Which of the following component is present in highest amount in whole egg?
   a. Water
   b. Protein
   c. Fat
   d. Carbohydrate

Q 36. Smoking treatment is used for the preservation of
   a. Fruits
   b. Milk
   c. Meat
   d. Vegetables

Q 37. Veal is the meat of
   a. Pig
   b. Calf
   c. Goat
   d. Buffalo

Q 38. Barges is
   a. A cocoa variety
   b. Processing method of cocoa beans
   c. Cocoa based drinks
   d. Cocoa shipment method

Q 39. Total plate count is expressed as
   a. Cfu/ml
   b. Cells/ml
   c. Viable cells/ml
   d. None

Q 40. HACCP stands for
Q 41. The scientific name of the liquorice plant is
   a. A Glycyrrhiza Glabra
   b. Cinnamomum Tamala
   c. Ocimum Basilicum
   d. Syzygium Aromaticum

Q 42. Which one is used for the adulteration of dried coriander powder?
   a. Horse dung powder
   b. Cow dung powder
   c. Buffalo dung powder
   d. All

Q 43. The most preferred type of yeast used in baking is
   a. Instant yeast
   b. Compressed yeast
   c. Dry yeast
   d. Brewer’s yeast

Q 44. Intrinsic factor for microbial growth is
   a. Temperature
   b. Pressure
   c. Humidity
   d. Water activity

Q 45. Potassium metabisulphite should not be used for the foods containing
   a. Meat
   b. Vitamin B1
Q 46. Gluten proteins are
   a. Water soluble
   b. Water insoluble
   c. Fat soluble
   d. None
Q 47. The bioactive compound in ginger is
   a. Ginseng
   b. Gingerol
   c. Sinigrin
   d. Allicin
Q 48. Which of the following is regarded as king of spices
   a. Chilly
   b. Pepper
   c. Turmeric
   d. Aniseed
Q 49. Which of the following prevents the spoilage of fat
   a. Sequestrants
   b. Emulsifier
   c. Anti-oxidants
   d. Lipase
Q 50. Central Agmark Laboratory is situated at
   a. Chennai
   b. Delhi
   c. Nagpur
   d. Kolkata
Q 51. Most commonly used fumigant in stored grains
   a. Methyl bromide
b. Phosphine
c. Carbon dioxide
d. Both a & b

Q 52. Compound responsible for butter flavor is
   a. Diacetyl
   b. Vanillin
   c. Both a & b
   d. Diethyl

Q 53. Test used for the detection of Vanaspati adulteration in ghee
   a. Furfural test
   b. Baudouin test
   c. Both
   d. None

Q 54. Which one is used for iron fortification of food products
   a. Ferrous sulphate
   b. Ferrous gluconate
   c. Ferrous lactate
   d. All

Q 55. Minor ingredient used in bread making
   a. Sugar
   b. Fat
   c. Maida
   d. Water

Q 56. The gluten formation starts at which stage in bread making
   a. Hydration
   b. Development
   c. Pick up
   d. Clean

Q 57. Spoilage of fruit juice is due to
a. Lactic acid fermentation
b. Organic acid fermentation
c. Slime production
d. All

Q 58. Anti-nutritional factor present in egg
   a. Avidin
   b. Phytic acid
   c. Saponin
   d. Tannin

Q 59. Red color of tomatoes is due to
   a. Anthocyanin
   b. Carotene
   c. Riboflavin
   d. Lycopene

Q 60. Which of the following share highest portion of meat export in India
   a. Cattle meat
   b. Goat meat
   c. Pig meat
   d. Poultry meat

Q 61. Temperature used in UHT processing of milk
   a. 63 degree Celsius
   b. 72 degree Celsius
   c. 115 degree Celsius
   d. 135 degree Celsius

Q 62. Which of the following is a component of myofibril
   a. Actin
   b. Myosin
   c. Both
Q 63. Flavour components in food products can be analyzed by
   a. Calorimetry
   b. Chromatography
   c. Rheology
   d. Psychrometry

Q 64. Bioactive component of garlic having health benefits
   a. Gallicin
   b. Allicin
   c. Mellicin
   d. Allyl sulphate

Q 65. Food sterilization via irradiation is also known as
   a. Gas sterilization
   b. Cold sterilization
   c. Neutral sterilization
   d. All

Q 66. Identify the correct statement
   a. Cereals are rich in methionine and lysine
   b. Cereals are deficient in methionine and lysine
   c. Cereals are rich in methionine and deficient in lysine
   d. Cereals are deficient in methionine and rich in lysine

Q 67. Defense food research laboratory is located at
   a. Delhi
   b. Hyderabad
   c. Nagpur
   d. Mysore

Q 68. Common salt affects ___________ of meat during curing
   a. Color
   b. Flavor
Q 69. According to BIS standards, minimum flat content in khoa should be
   a. 15%
   b. 23%
   c. 37%
   d. 50%

Q 70. Glazing of fish is practiced to protect it from
   a. Oxidation
   b. Freezer burn
   c. Both
   d. None

Q 71. Poultry eggs are rich source of nutrients except
   a. Oxidation
   b. Freezer burn
   c. Both
   d. None

Q 72. Which of the following is true about wax coating of fruits
   a. Increase surface gloss
   b. Decrease rate of transpiration
   c. Increase shelf life
   d. All

Q 73. ISO 14001 is related to management of
   a. Food safety
   b. Environment
   c. Energy
   d. Food quality
Q 74. Which of the following compound is characterized by the presence of NH$_2$ and carboxyl-COOH group
   a. Carboxylic acid
   b. Amino acid
   c. Ascorbic acid
   d. Retinol

Q 75. Which of the following is specifically related to fruits and vegetables
   a. FPO
   b. FSSAI
   c. AGMARK
   d. All

Q 76. Which one is not dependent on food product size
   a. Pasteurization
   b. Ohmic heating
   c. Both
   d. None

Q 77. The deficiency of calcium and vitamin D in children leads to
   a. Osteomalacia
   b. Rickets
   c. Scurvy
   d. Pellagra

Q 78. Yoghurt is fermented product which contains
   a. Virus
   b. Bacteria
   c. Yeast
   d. All

Q 79. Freezing of food is a good method of preservation as
   a. It does not allow growth of pathogens
b. It does not allow growth of psychrophiles
   c. It retards the enzymic reactions
   d. All

Q 80. Pulse electric field works by
   a. Electric breakdown of cell wall
   b. Application of high pressure
   c. High heat treatment
   d. None

Q 81. Oil content is sesame seeds is a.
   a. 30%
   b. 40%
   c. 50%
   d. 60%

Q 82. The pectin content is citrus peel is a. 20-30%
   a. 30-40%
   b. 40-50%

Q 83. Milling of wheat is done to
   a. Separate endosperm from germ and bran
   b. Separate oil from germ
   c. Separate bran from germ
   d. None

Q 84. Controlled atmospheric packaging
   a. Monitors the gases inside the package
   b. Monitors the external gases
   c. Monitors and controls the gases inside the package
   d. None

Q 85. Which of the following is a climacteric fruit
a. Mango  
b. Orange  
c. Grapes  
d. Strawberry

Q86. The fat content in double toned milk is a. 0.5%  
b. 1.5%  
c. 1%  
d. 3.5%

Q87. For optimum jelly preparation which one is correct a. pH-3.1; acid-1%; sugar-67.5%  
b. pH-5.5; acid-1%; sugar-60.5%  
c. pH-3.1; acid-2%; sugar-55.5%  
d. pH-3.1; acid-1%; sugar-75.5%

Q88. Which of the following helps to retain color of meat  
a. NaCl  
b. Nitrates  
c. Bromates  
d. None

Q89. Myoglobin binds to which gas in muscles  
a. CO2  
b. O2  
c. N2  
d. CO

Q90. Heating of collagen leads to formation of  
a. Gelatin  
b. Actin  
c. Myosin  
d. None
Q 91. Ground meat with skin around it is called
   a. Sausage
   b. Beef
   c. Mutton
   d. None

Q 92. Follic acid deficiency leads to
   a. Pellagra
   b. Anaemia
   c. Scurvy
   d. Beri-beri

Q 93. Pascal is the unit of measurement of
   a. Temperature
   b. Pressure
   c. Heat
   d. None

Q 94. Hedonic scale is used for
   a. Sensory analysis
   b. Protein analysis
   c. Fat analysis
   d. None

Q 95. Which of the following tests involve two similar and one dissimilar sample
   a. Triangle
   b. Duo-trio
   c. Paired comparison
   d. None

Q 96. Which of the following is responsible for sour taste
   a. Citric acid
   b. Quinine
Q 97. Most common type of spoilage in cans is
   a. TA spoilage
   b. Hydrogen swell
   c. Soft swell
   d. All
Q 98. The radiation does for inhibiting sprouting in potatoes is a. 0.05-
   0.15 kGy
   b. 5-10 kGy
   c. 0.5-1.0 kGy
   d. 0.01-0.02 kGy
Q 99. The hormone involved in the conversion of glycogen to glucose in the liver is
   a. Glucagon
   b. Insulin
   c. Vasopressin
   d. None
Q 100. Disease which arises due to insufficient glucose metabolism is
   a. Diabetes mellitus
   b. Diabetes insipidus
   c. Celiac disease
   d. Goiter
Q 101. Scientific name of rice
   a. Oryza sativa
   b. Allium cepa
   c. Hordeum vulgare
   d. Triticum aestivum
Q 102. White revolution/operation flood started in year
Q 103. ISO 9000- Quality Systems came in year
a. 1977
b. 1987
c. 1997
d. 1999

Q 104. NDDB was established in
a. 1965
b. 1970
c. 1975
d. 1980

Q 105. Which of the following organization was set up jointly by FAO & WHO
a. Codex alimenatrius
b. FSSAI
c. EU
d. USDA

Q 106. The letter P in HACCP stands for
a. Point
b. Protection
c. Preservation
d. None

Q 107. The principal anti-nutritional factor in soyabean is
a. Saponin
b. Avidin
c. Lecithin
Q108. PFA came in year
   a. 1954
   b. 1955
   c. 1964
   d. 1965

Q109. The protein content of lean meat is
   a. 20-22%
   b. 30-32%
   c. 40-42%
   d. 10-12%

Q110. Barley malt is used for the preparation of
   a. Wine
   b. Beer
   c. Brandy
   d. Rum

Q111. Bleaching of flour results in flour with
   a. Improved dough strength
   b. Decreased dough strength
   c. Improved protein content
   d. Decreased protein content

Q112. Genetically modified rice with carotene is
   a. Golden rice
   b. Silver rice
   c. Red rice
   d. Yellow rice

Q113. The insertion of BT gene causes a change in
   a. DNA
   b. RNA
Q114. Which of the following has the highest protein content
   a. Soya chunks
   b. Soya grits
   c. Soya protein concentrate
   d. Soya protein isolate

Q 115. Kimichi is a product of which country
   a. Japan
   b. China
   c. India
   d. Korea

Q 116. Noodles originated in which country
   a. India
   b. Japan
   c. Sri Lanka
   d. China

Q 117. Dry rice is
   a. Solid N2
   b. Solid O2
   c. Solid CO2
   d. Solid H2

Q 118. Wheat is lacking in which amino acid
   a. Cysteine
   b. Methionine
   c. Lysine
   d. Tryptophan

Q119. What is the ratio of diameter to thickness of a cookie called
   a. Spread ratio
b. Cookie ratio
  c. Spread factor
  d. Both a & c

Q 120. Sorption isotherm is plotted between moisture content and
  a. Aw of food product
  b. Temp of product
  c. RH of product
  d. None

Q 121. The production of milk in India 2015-16 has been
  a. 145 MT
  b. 155 MT
  c. 165 MT
  d. 175 MT

Q 122. The preparation of jelly does not require
  a. Acid
  b. Sugar
  c. Pectin
  d. Salt

Q 123. An effective fumigant in grain storage is
  a. Methyl bromide
  b. Calcium carbide
  c. Acetylene
  d. None

Q 124. The detection of ghee with Vanaspati can be done by
  a. Baudouin test
  b. Bromo-thymol test
  c. Starch test
  d. Resorcinol test
Q 125. Which enzyme should be inactivated immediately after homogenization of milk
   a. Phosphatase
   b. Lipase
   c. Peroxidase
   d. Proteinase

Q 126. Mycotoxin is produced by
   a. Aspergillus flavus
   b. Penicillium
   c. Coxiella burnetti
   d. All

Q 127. Rennin is a
   a. Protein
   b. enzyme
   c. Fatty acid
   d. Antibiotic

Q 128. The color of anthocyanin at low pH is
   a. Red
   b. Blue
   c. Green
   d. Brown

Q 129. Angle of repose of wheat grain is
   a. 27
   b. 37
   c. 47
   d. 57

Q 130. Father of canning is
   a. Nicholas Appert
   b. Pebbles
Q 131. The visible range of spectrophotometer is
   a. 400-800 nm
   b. 200-400 nm
   c. 800-1200 nm
   d. None

Q 132. When milk is coagulated, the part that remains is called
   a. Casein
   b. Whey
   c. Both
   d. None

Q 133. Pectin is precipitated by
   a. Alcohol
   b. Ammonium hydroxide
   c. Petroleum ether
   d. All

Q 134. The biological value of egg is
   a. 93
   b. 63
   c. 73
   d. 43

Q 135. Saffron is obtained from ____________ of flower
   a. Petals
   b. Stigma
   c. Stamen
   d. Leaflets

Q 136. The taste buds have a life cycle of _______________ days
   a. 15
Q 137. Rhodopsin is a mixture of
   a. Opsin and 11-cis-retinal
   b. Rhodsin and opsin
   c. It is not a mixture
   d. None

Q 138. Banana like flavor
   a. Malic acid
   b. Limonin
   c. Iso amyl alcohol
   d. Tartaric acid

Q 139. Which of the following is not central tendency
   a. Mean
   b. Median
   c. Mode
   d. Standard deviation

Q 140. Which among the following has the lowest penetration power
   a. Gamma rays
   b. X rays
   c. Microwaves
   d. Infra red rays

Q 141. The immunity with which a person is born is
   a. Innate
   b. Acquired
   c. Adaptive
   d. None

Q 142. TSS of fruits is measured by
a. Refractometer
b. Penetrometer
c. Hydrometer
d. Lactometer

Q 143. Which enzyme is responsible for browning of cut fruits and vegetables
   a. PPO
   b. Amylase
c. Lipase
d. Proteinase

Q 144. Which of the following is not a preservation technique
   a. Fermentation
   b. Packaging
c. Pickling
d. Micro filtration

Q 145. Which one is class 1 preservative
   a. Sorbates
   b. Carbonates
c. Salt
d. Benzoates

Q 146. Carbonated drinks and water is packaged in
   a. PET
   b. PS
c. Polyamide
d. None

Q 147. Kernel weight of rice
   a. 10-20 mg
   b. 20-30 mg
c. 30-40 mg
Q 148. Which of the following is used as an adhesive in laminates?
   a. Silicates
   b. Starch
   c. Casein
   d. Whey

Q 149. Which of the following cannot be prevented by consumption of probiotics?
   a. Urinary tract infections
   b. Digestive disorders
   c. Respiratory disorders
   d. All

Q 150. Which of the following is amphoteric in nature?
   a. Carbohydrates
   b. Proteins
   c. Fats
   d. Fibres

Q 151. Deficiency of niacin can cause
   a. Beri-beri
   b. Pellagra
   c. Scurvy
   d. Rickets

Q 152. Which of the following is an example of a cryogenic agent?
   a. Liquid H2
   b. Liquid N2
   c. Liquid CO
   d. None

Q 153. Which of the following contains antimicrobial and anti-inflammatory factors?
Q 154. Which of the following differentiates a sample based on its intensity
   a. Duo-trio
   b. Triangle test
   c. Ranking test
   d. Paired comparison

Q 155. Heat required to raise the temp. of 1g of substance by 1 degree Celsius is called
   a. Specific heat
   b. Enthalpy
   c. Latent heat
   d. None

Q 156. The enzymatic reactions are most affected by
   a. Temperature
   b. pH
   c. both
   d. none

Q 157. 10 degree Celsius is equivalent to __________ Fahrenheit
   a. 20
   b. 30
   c. 40
   d. 50

Q 158. Blackening of pickle occurs due to formation of
   a. Hydrogen sulfide
   b. Bromates
Q 159. Which of the following mill uses compressive and shearing forces
   a. Ball mill
   b. Hammer mill
   c. Roller mill
   d. Pin mill

Q 160. Which of the following gas is important for climacteric fruits
   a. CO2
   b. O2
   c. C2H4
   d. CO

Q 161. Which of the following is the cooking technique that will allow the retention of most vitamins
   a. Pickling
   b. Roasting
   c. Frying
   d. Boiling

Q 162. Dry curing method of cooking meat is
   a. Boiling
   b. Roasting
   c. Frying
   d. All

Q 163. Laminates are prepared from
   a. Paper
   b. Cellophane
   c. Aluminium
   d. All
Q 164. Essential oil of spices is obtained by
   a. Distillation
   b. Evaporation
   c. Expression
   d. Both a & c

Q 165. Resins are added during manufacturing of paper to
   a. Improve water repellency
   b. Improve tear resistance of paper
   c. Improve the gas barrier property
   d. All

Q 166. Which of the following is responsible for spoilage of eggs
   a. Penicillium
   b. Calosporium
   c. Thamnidium
   d. All

Q 167. A disadvantage of freezing is
   a. Enzymes inactivation
   b. Freezer burn
   c. Growth of mo’s
   d. Shelf life

Q 168. The microwave frequency used in food industry
   a. 915MHz
   b. 2450 MHz
   c. Both
   d. None

Q 169. Ideally chapatti flour should have protein content of
   a. 5-10%
   b. 10-15%
   c. 15-20%
Q 170. For tenderization of meat, the enzyme used is
   a. Papain
   b. Rennin
   c. Lipase
   d. All
Q 171. Curcumin is present in
   a. Beetroot
   b. Turmeric
   c. Onion
   d. Capsicum
Q 172. The sweetest sugar is
   a. Sucrose
   b. Fructose
   c. Dextrose
   d. Glucose
Q 173. TSS of tomato puree should be
   a. 5%
   b. 9%
   c. 21%
   d. 26%
Q 174. Which of the following has highest protein content
   a. Soya isolate
   b. Soya concentrate
   c. Soya grits
   d. Soya chunks
Q 175. Beta glucan, is an example of
   a. Resistant starch
   b. Soluble fiber
c. Insoluble fiber
d. None
Q 176. The alcohol is used for the precipitation of
a. Soluble fiber
d. Pectin
c. Both
d. None
Q177. Heating of collagen results in formation of
a. Agar
b. Gelatin
c. Lecithin
d. Avidin
Q 178. Iodine test is used for the detection of
a. Protein
b. Starch
c. Vegetable fat
d. Sugar
Q 179. The ANF in pulses can be reduced by
a. Soaking
b. Fermentation
c. Germination
d. All
Q180. Which of the following is used as a preservative in juice
a. Sulphur dioxide
b. Potassium metabisulphate
c. Citric acid
d. Hydrogen peroxide
Q 181. CCCF stands for
a. Codex Committee on Cofactor in Foods
b. Codex Council on Contaminants in Foods
c. Codex Committee on Contamination in Foods
d. Codex Control of Contamination in Foods

Q 182. ________________ should provide a clear explanation and rationale for its conclusions and recommendations

   a. JECFA
   b. ADI
   c. FDA
   d. HACCP

Q 183. The executive committee of the commission does not consist of

   a. Chairperson
   b. Regional Co-ordinators
   c. Advisors to Members
   d. Secretariat

Q 184. The Consumer Protection Act was came into force on

   a. 24 December 1986
   b. 24 March 1986
   c. 15 August 1986
   d. 26 January 1986

Q 185. The following acts were implemented for consumer interest

   a. Consumer Protection Act
   b. FSS Act
   c. Weight & Measures Act
   d. All of these

Q 186. Time limit for filling complaint under consumer act
103

Q 187. When Right to Information Act (RTI) was passed

a. Oct 2005
b. Oct 2006
c. Aug 2005
d. Aug 2008

Q 188. The definition of public servant is given in

a. Section 19
b. Section 21
c. Section 23
d. Section 25

Q 189. How many rights of consumers are provided under consumer protection act 1986?

a. 6
b. 7
c. 8
d. 4

Q 190. The Maharashtra Consumer Protection Rules were came into force in which year

a. 2000
b. 1999
c. 1989
d. 1988
Q 191. World Consumer Day is celebrated on
   a. 15 March
   b. 26 January
   c. 24 December
   d. None of these

Q 192. Adulteration of food or drink intended for sale is given in section
   a. 275
   b. 274
   c. 273
   d. 272

Q 193. Hallmark is certification maintained for standardization of
   a. Milk
   b. Honey
   c. Package
   d. Gold

Q 194. The limit for compensation for district consumer forum is
   a. 10 lakhs
   b. 15 lakhs
   c. 20 lakhs
   d. 25 lakhs

Q 195. Food standards for product specification is given by which Indian authority?
   a. FSSAI
   b. ISO
   c. FAO
d. WHO

Q 196. AGMARK was promulgated in year a.
   2004
   b. 1987
   c. 1937
   d. 1897

Q 197. AGMARK Act 1973 comes under
   a. Department of Consumer Affairs, Govt. of India
   b. Directorate of Marketing and Inspection
   c. Department of Agriculture & Cooperation
   d. Department of Legal Metrology

Q 198. The implementation of Order of Consumer Court is given in
   a. Sec 24
   b. Sec 25
   c. Sec 26
   d. Sec 27

Q 199. Sale of Adulterated drug is given in
   a. Section 274 of IPC
   b. Section 275 of IPC
   c. Section 276 of IPC
   d. Section 272 of IPC

Q 200. The Legal Metrology Act came into force in
   a. 1986
   b. 2009
   c. 1975
d. 1940