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 change 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 400-700 nm 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 can swells 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
46. Which of the following contains the 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 the highest fat content
(a) cookies
(b) avocado
(c) whipping cream
(d) milk powder

50. Pycnometer is used for measurement of
51. Refractometer is used to measure
(a) acid/boric 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-newtonian 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 function 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) amylase
(b) amylopectin
(c) dextrin
(d) amylase

69. Chemical that reduces the surface tension
(a) preservatives  
(b) **emulsifiers**  
(c) stabilizers  
(d) humectant  

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) Commination
(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 muscle index
(b) bone mass index
(c) body muscle index
(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 refrigeration 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