M.Sc. FOOD SCIENCE AND TECHNOLOGY

1. Coulumb is a unit for measuring ________?
   (A) Conductance  (B) Light
   (C) Electric charge  (D) Resistance

2. Carotene in the body changes into Vitamin A in the
   (A) Liver  (B) Pancreas
   (C) Gall bladder  (D) Intestine

3. Lysine is a limiting amino acid in
   (A) Wheat  (B) Rice
   (C) Corn  (D) All

4. Paraboiled rice contains sufficient amount of
   (A) Nicotine  (B) Thiamin
   (C) Niacin  (D) None

5. Food Research Lab at Kannur in the south conducted lot of
   experiment on
   (A) Soyabean  (B) Peas
   (C) Pulses  (D) Cereals

6. Differentiate \( \sin^4 x \) with respect to \( x \).
   (A) \( \sin^3 x \cdot \cos x \).
   (B) \( 4\sin^3 x \cdot \cos x \).
   (C) \( 3\sin^3 x \cdot \cos x \).
   (D) None of the above.

7. Thermophilic bacteria cause problem in
   (A) Baking industry  (B) Hotel industry
   (C) Catering industry  (D) Canning industry

8. The blanching is done to food items to --------
   (A) Destroy enzymes  (B) Maintain flavour colour & texture
   (C) KMS is used  (D) All

9. The use of spray drier give a product as
   (A) crushed  (B) Ground
   (C) Fine dry Powder  (D) None

10. When Potassium Metabisulphate (KMS) is added as a preservative
    (A) Gives out sulphur dioxide  (B) Gas collects on top
     (C) Prevents entry of micro-organism  (D) All
11. Clinching is
   (A) **Intentional escape of air from loose lid.** (B) Sealing of cans
   (C) Adding syrup or brine and lactic acid  (D) None

12. Addition to the food of one or more dietary essentials in amounts higher than those present in the food in the natural state.
   (A) Enrichment  (B) **Fortification**
   (C) Restoration  (D) None

13. Saturated fatty acids
   (A) **Elevate blood Cholesterol** (B) Minimize the level of blood cholesterol
   (C) Has no effect  (D) None of the above

14. Integrate the following. \[ \frac{1}{1-\cos x} \]
   (A) \( - (\cot x + \cosec x) \)  (B) \( \cot x + \sec x \)
   (C) \( - (\cot x + \sec x) \)  (D) \( \cot x + \cosec x \)

15. What substance is used to identify the presence of starch?
   (A) **Iodine**  (B) Magnesium
   (C) NaCl  (D) Flourine

16. Bacterial cell walls are made of
   (A) Lipoprotein  (B) **Peptidoglycan**
   (C) Protein  (D) Phospholipids

17. Niacin is the chemical name of which vitamin?
   (A) \( B_3 \)  (B) \( B_{12} \)
   (C) \( B_2 \)  (D) E

18. The process of converting unsaturated fats into saturated fats by addition of hydrogen is called ..............
   (A) **Hydrogenation**  (B) Cyclisation
   (C) Halogenation  (D) Reverse Osmosis

19. What element has the lowest boiling point?
   (A) Hydrogen  (B) **Helium**
   (C) Boron  (D) Neon
20. Which gland in the human body is called the Master Gland?
   (A) Pancreas  (B) Pituitary  
   (C) Adrenal  (D) Thyroid

21. Integrate $x^3 \tan^{-1} x$.
   (A) $\frac{1}{4} \left[ (x^4-1) \tan^{-1} x (\frac{1}{3} x^3-x) \right]$  
   (B) $\frac{1}{3} \left[ (x^3-1) \tan^{-1} x (\frac{1}{3} x^3-x) \right]$  
   (C) $\frac{1}{4} \left[ (x^4-1) \tan^{-1} x (\frac{1}{3} x^3-x) \right]$  
   (D) $\frac{1}{4} \left[ (x^4-1) \tan^{-1} x (\frac{1}{3} x^3-x) \right]$  

22. Which toxic element is present in tobacco?
   (A) Marijuana  (B) Nicotine  
   (C) Heroin  (D) Methane

23. What is the SI unit of radiation?
   (A) Becquerel  (B) Pascal  
   (C) Decibel  (D) mm of Hg

24. Tocopherol is the chemical name of which vitamin?
   (A) Vitamin A  (B) Vitamin C  
   (C) Vitamin D  (D) Vitamin E

25. In which form is calcium present in our bones?
   (A) Calcium Nitrate  (B) Calcium Phosphate  
   (C) Calcium Sulphate  (D) Calcium Carbonate

26. Bacteria that can live with or without oxygen are called
   (A) Facultative anaerobes  (B) Autotrophic anaerobes  
   (C) Obligate anaerobes  (D) Hilotrophic anaerobes

27. What substance does the Benedict’s test identify?
   (A) Reducing sugar  (B) Protein  
   (C) Lipid  (D) Carbohydrates

28. Iron is important for the production of a protein called…….
   (A) Actin  (B) Myosin  
   (C) Haemoglobin  (D) Myoglobin

29. Out of the following is an alkylating agent used as disinfectant
   (A) Merbromin  (B) Silver nitrate  
   (C) Idouridine  (D) Glutaraldehyde
30. The temperature of home refrigeration should be maintained below
   (A) 6 °C  (B) 10 °C  (C) 0 °C  (D) 15 °C

31. The sequestrants used in cold drinks to
   (A) remove traces of metal  (B) increase the colour
   (C) increase consistency  (D) None of the above

32. Stimulant present in cocoa
   (A) Theobromine  (B) Caffeine
   (C) Catechins  (D) All of the above

33. A bacterium found in beer and cider
   (A) Acetobacter  (B) Glucanobacter
   (C) Pedicoccus  (D) Leuconostoc

34. Let A be a square matrix of order 3. If \( [A] = -3 \) then the value of the determinant of A is
   (A) 9  (B) -9  (C) 27  (D) -27

35. FDA is
   (A) Food and Diet Action  (B) Food and Drug Administration
   (C) Fundamental Drug Act  (D) Food Dietary Act

36. The most frequently reported food borne disease is……….food poisoning
   (A) Salmonella  (B) Staphylococcal
   (C) Botulism  (D) All of the above

37. GMP is
   (A) Good Manufacturing plan  (B) Good Manufacturing Practices
   (C) Good Marketing Practices  (D) None of the above

38. Mould produce a toxin called
   (A) Enterotoxin  (B) Neurotoxin
   (C) Mycotoxin  (D) None of the above

39. An example for competitive inhibitor of succinic acid
   (A) Formic Acid  (B) Maloric Acid
   (C) Fumaric Acid  (D) Lactic Acid
40. Enzyme used for the break down of starch
(A) Alpha amylase           (B) Protease
(C) Carboxy Peptidase       (D) Lipase

41. A food additive causing the classical symptoms of the Chinese Restaurant Syndrome is
(A) MSG                     (B) Anticaking Agents
(C) Sequest-rants           (D) Buffering agents

42. A chemical leavening agent is
(A) Sodium carbonite        (B) Sodium sulphate
(C) Sodium bicarbonate      (D) Sodium nitrate

43. Trimethyl amine oxide is reduced to trimethyl amine is an indicator of
(A) Meat spoilage           (B) Egg spoilage
(C) Fish spoilage           (D) Poultry spoilage

44. Temeph is a highly popular soybean preparation in
(A) Indonesia               (B) Japan
(C) China                   (D) Africa

45. The negative ion present in common salt is............. ?
(A) Na                       (B) Cl\
(C) Na\(^2-\)                  (D) Cl\(^2-\)

46. Permitted level of nitrates in Food Stuffs
(A) 10 µg                    (B) 30 µg
(C) 50 µg                    (D) 60 µg

47. World Health Day is celebrated on
(A) April 8                  (B) September 2
(C) April 7                  (D) August 16

48. The deficiency disease of copper
(A) Wilsons disease          (B) Goitre
(C) Rickets                  (D) Aneamia

49. Yeast is a rich source of
(A) Vitamin A                (B) Vitamin B
(C) Vitamin B                (D) Vitamin K
50. __________ is the chief producer of coffee.
   (A) Kerala                          (B) Tamilnadu
   (C) Karnataka                       (D) Andhra Pradesh

51. The nutritional loss of canned fruits and vegetables include
   (A) Vitamin D                         (B) Vitamin C
   (C) Vitamin B                        (D) Vitamin C & Vitamin B

52. The percentage of sugar in candy
   (A) 56-60          (B) 60-65
   (C) 70-75          (D) 75-80

53. The caffeine content of Tea is
   (A) 6%                       (B) 4%
   (C) 10%                      (D) 1%

54. An alcoholic beverage prepared from Rice
   (A) Arrack                        (B) Wiski
   (C) Brandi                        (D) Rum

55. Scoville heat unit (shu) is used for the measurement of
   (A) Pungency                      (B) Sweet
   (C) Sour                          (D) Bitter

56. Pure concentrated oil soluble extractive of a natural spice or herb is known as
   (A) Extract                       (B) Resin
   (C) Essential oil                (D) Oleoraside

57. 1 Calorie = ________________
   (A) 4.08                        (B) 4.18 Joule
   (C) 4.38                        (D) 4.48

58. The science of wine making is known as Calorie
   (A) pomology                     (B) enology
   (C) oology                       (D) pedology

59. Largest producer of sugarcane is ________________
   (A) Uttar Pradesh              (B) Gujarat
   (C) Tamil Nadu                (D) Assam
60. The optimum temp at which most enzymes act rapidly is about
   (A) 50°C                     (B) 18°C
   (C) 37°C                     (D) 40°C

61. 1 Gray = _______________ rads
   (A) 1000                            (B) 100
   (C) 10000                           (D) 10

62. The flavour component present in Cinnamon
   (A) euginol                         (B) Pipperin
   (C) Zingiberine                     (D) Limonene

63. Ketose like fructose are distinguished from other sugar by
   (A) Benedicts                       (B) Barfodes
   (C) Bialis test                     (D) Selliwanoffs

64. Good source of Essential Fatty acid.
   (A) Groundnut oil                   (B) Sesanic Oil
   (C) Coconut oil                     (D) Shark liver oil

65. The enzyme which is used for artificial tendensation of meat
   (A) Papain                          (B) Trypsin
   (C) Lipase                          (D) Nicin

66. Which is known as “Indispensable accessory food factors”
   (A) Vitamin                         (B) CHO
   (C) Protein                         (D) Fat

67. The non-methylated galacturonic with polymers found in immature fruit
   (A) Protopectin                     (B) Pectic
   (C) Pectinic acid                   (D) Pectin

68. Chemical Name of Baking soda
   (A) Sodium bicarbonate              (B) Sodium carbonate
   (C) Potassium carbonate             (D) Potassium bicarbonate

69. The measure of the availability of water molecules to enter into microbial,
   enzymatic or chemical reactions.
   (A) Moisture content                (B) water activity
   (C) Bound water                     (D) Relatemie humidity

70. A two-phase system in which a liquid is dispersed in a solid.
   (A) Foam                             (B) Sol
   (C) Gel                              (D) colloid
71. Nitric oxide acts as a _______________ to accelerate color development in cured meats.
   (A) cryoprotectant  (B) bactericide  
   (C) reductant  (D) antioxidant

72. The ability of an organism to survive thermal processing is properly termed.
   (A) heat resistance  (B) heat tolerance  
   (C) TDT  (D) Decimal reduction

73. Which condition is common to meats that are frozen before rigor mortis is established.
   (A) PSE  (B) Cold shorteining  
   (C) Pre-rigor  (D) BSE

74. Which is the pleasure scale for rating food characteristics
   (A) Hedonic scale  (B) Smiley scale  
   (C) Brix scale  (D) Score card

75. The number of grams of iodine that are absorbed by a 100g quantity of a fat.
   (A) saponification value  (B) Acid value  
   (C) Peroxide value  (D) Iodine value

76. Mineral water containing not less than ________________ parts per million total dissolved solids.
   (A) 500ppm  (B) 250ppm  
   (C) 300ppm  (D) 450ppm

77. Example for climatric fruit
   (A) apple  (B) grape  
   (C) strawberry  (D) lemon

78. Bacteria that require organic compounds for survival are known as
   (A) Lithotrophs  (B) Organotrophs  
   (C) Chemolilthotrophs  (D) Lithochemotrophs

79. A Yeast used in making bread is
   (A) Saccharomyces  (B) Salmonella  
   (C) Actinomyces  (D) Streptococcus

80. The Green Revolution (first) was launched in
   (A) 1948-49  (B) 1962-63  
   (C) 1967-68  (D) 1971-72
81. The dangerzone of temperature lies between
   (A) 40 & 140 °C
   (B) 0 & 45 °C
   (C) 4 & 60 °C
   (D) 4 & 140 °C

82. The international body involved in the definition of HACCP is
   (A) International Association of Sanitarians
   (B) Codex alimentarius
   (C) International Association for Food Safety
   (D) Food & drug administration

83. The virus most often linked to foodhandlers is
   (A) Hepatitis A
   (B) Salmonella
   (C) Claviceps
   (D) Hepatitis C

84. Which statement concerning ‘GRAS’ is true
   (A) GRAS means ‘ generally regards as safe’
   (B) GRAS substances are exempt from the FAA
   (C) The FDA has no interest in GRAS testing
   (D) Even if new evidence shows a GRAS substance to be unsafe, it remains GRAS

85. In a product like bread, why is calcium propionate used?
   (A) antioxidant
   (B) dough strengthener
   (C) emulsifier
   (D) Antimicrobial agent

86. Mesophilic organism can grow at
   (A) Refrigeration temp;
   (B) Freezing temp;
   (C) Room temp ;
   (D) Very high temp ;

87. The principle behind the application of several treatments to prevent bacterial growth is
   (A) The hurdle effect
   (B) The inhibitory effect
   (C) The antimicrobial principle
   (D) The inhibitory principles

88. ____________ is known as the ‘Granary of India’
   (A) Punjab
   (B) Andhrapradesh
   (C) Gujarat
   (D) Tamil Nadu.

89. Variations of 10 observations is 5. If each of the observation is multiplied by 3 then the variance of the resulting observations is
   (A) 5
   (B) 15
   (C) 25
   (D) 45
90. A phospholipids in egg yolk that is very effective emulsifying agent.
   (A) Lecithin (B) Calcium propionate
   (C) Glyceryl Monostearate (D) Ethanol amine

91. Phenolic compounds contributing while to yellow colour and some flavour to plants.
   (A) Tannins (B) Anthoxanthins
   (C) Chlorophyll (D) Catechins

92. The development of flavours and odours in fats as a result of uptake of oxygen is
   known as
   (A) hydrolytic rancidity (B) reversion
   (C) oxidative rancidity (D) polymerization

93. The process of making a stable emulsion of milk fat & milk serum by mechanical
   treatment and rending the mixture homogenous is known as
   (A) Pasteurization (B) Homogenisation
   (C) Sterilization (D) Concentration

94. The pungent principle in chillies is an alkaloid called
   (A) capsaicin (B) Pipperin
   (C) curcumin (D) euginol

95. Scientific name of wheat.
   (A) Oriza sativa (B) Triticum westivum
   (C) Piper nigrum (D) Zea mays.

96. World Diabetes Day is celebrated on
   (A) December 1 (B) November 14
   (C) January 22 (D) August 6

97. Kharif Crops are harvested in
   (A) October (B) September
   (C) July (D) August

98. Freeze dried foods are packed in the presence of
   (A) Oxygen (B) Carbon-di-oxide
   (C) Inert gas like nitrogen (D) None
99. Nutritive value of proteins of legumes is improved by
   (A) Diet planning
   (C) Heat processing
   (B) Eating raw
   (D) None of the above

100. Which drug is present in cola drinks?
    (A) Valium
    (C) Opiate
    (B) Cocaine
    (D) Caffeine