FOOD SCIENCE

1. The freezing point for pure water is

|  |  |
| --- | --- |
| (A) | 10°F |
| (B) | 28°F |
| (C) | 15°F |
| (D) | 32°F |

2. Large quantities of Phytohaemagglutinin is present in

|  |  |
| --- | --- |
| (A) | rice |
| (B) | egg |
| (C) | kidney beans |
| (D) | milk |

3. Which one of the following Vitamins helps in normal blood clotting?

|  |  |
| --- | --- |
| (A) | C |
| (B) | D |
| (C) | A |
| (D) | K |

4. Sucrose is commonly referred to as

|  |  |
| --- | --- |
| (A) | salt |
| (B) | table sugar |
| (C) | carbohydrate |
| (D) | glucose |

5. Which polysaccharide is commonly added to food products?

|  |  |
| --- | --- |
| (A) | Water |
| (B) | Glucose |
| (C) | Salt |
| (D) | Starch |

6. The temperature employed for deep fat frying is

|  |  |
| --- | --- |
| (A) | 120-200°C |
| (B) | 130-140°C |
| (C) | 180-220°C |
| (D) | 220-280°C |

7. Major ingredient of carbonated soft drinks is

|  |  |
| --- | --- |
| (A) | Water |
| (B) | Caffeine |
| (C) | Corn syrup |
| (D) | Flavouring |

8. Which of the following acts as a Universal solvent?

|  |  |
| --- | --- |
| (A) | Water |
| (B) | Soap |
| (C) | Alcohol |
| (D) | Aldehyde |

9. Which micro mineral is essential for the production of thyroid hormones?

|  |  |
| --- | --- |
| (A) | Calcium |
| (B) | Fluorine |
| (C) | Iodine |
| (D) | Magnesium |

10. When food comes in contact with wood smoke, it is contaminated with

|  |  |
| --- | --- |
| (A) | Biaxin |
| (B) | Chlorodiaxin |
| (C) | Formalin |
| (D) | None of the above |

11. BIS stands for

|  |  |
| --- | --- |
| (A) | Board of Indian Standards |
| (B) | Bureau of Indian Standards |
| (C) | Bureau of International Standards |
| (D) | None of the above |

12. The botanical name for Kesari Dal is

|  |  |
| --- | --- |
| (A) | Cajanus *cajan* |
| (B) | Cicer *arietinum* |
| (C) | Vigna *radiate* |
| (D) | Lathyrus *sativus* |

13. Carbohydrates and proteins provide about …………… calories per gram.

|  |  |
| --- | --- |
| (A) | 5 |
| (B) | 4 |
| (C) | 2 |
| (D) | 6 |

14. Which among the following is called as ‘animal starch’?

|  |  |
| --- | --- |
| (A) | Caramel |
| (B) | Cellulose |
| (C) | Dextrins |
| (D) | Glycogen |

15. Stripping solvent off a meal is called

|  |  |
| --- | --- |
| (A) | Toasting |
| (B) | Buttering  |
| (C) | Gamming  |
| (D) | Milling  |

16. Mould and Yeast are classified as

|  |  |
| --- | --- |
| (A) | viruses |
| (B) | parasites |
| (C) | fungi |
| (D) | bacteria |

17. Vitamin B2 is also known as

|  |  |
| --- | --- |
| (A) | Thiamine |
| (B) | Niacin |
| (C) | Riboflavin |
| (D) | Folic acid |

18. Which of the following sweeteners has the highest glycemic index?

|  |  |
| --- | --- |
| (A) | Maltose |
| (B) | Dextrose |
| (C) | Maltodextrin |
| (D) | Glucose |

19. Which type of drying is commonly used for producing milk powder?

|  |  |
| --- | --- |
| (A) | Wet |
| (B) | Heat |
| (C) | Spray |
| (D) | Air |

20. Which Vitamin is used most commonly to control enzymatic browning in fruits?

|  |  |
| --- | --- |
| (A) | K |
| (B) | B |
| (C) | C |
| (D) | D |

21. A common adulterant for black pepper is:

|  |  |
| --- | --- |
| (A) | Dried papaya seeds |
| (B) | Poppy seeds  |
| (C) | Argimone seeds |
| (D) | None of the above |

22. Methemoglobinemia is caused due to …………… toxicity.

|  |  |
| --- | --- |
| (A) | Oxalate |
| (B) | Phytate |
| (C) | Methane |
| (D) | Nitrobenzene |

23. Which one of the following is a type of mushroom toxicity?

|  |  |
| --- | --- |
| (A) | Ergot |
| (B) | Amatoxin |
| (C) | Aflatoxin |
| (D) | Fusarium |

24. Favism is caused due to the lack of enzyme

|  |  |
| --- | --- |
| (A) | Amylase |
| (B) | Protease |
| (C) | Glucose-6-phosphate dehydrogenase |
| (D) | Lipase |

25. Tannins interfere with …………… absorption.

|  |  |
| --- | --- |
| (A) | Sodium |
| (B) | Potassium |
| (C) | Magnesium |
| (D) | Iron |

26. What is the expansion for HACCP?

|  |  |
| --- | --- |
| (A) | Hazard Analysis and Critical Control Point |
| (B) | Health Assessment and Critical Control Point |
| (C) | Health Analysis and Committee for Critical Control Point |
| (D) | None of the above |

27. AGMARK refers to

|  |  |
| --- | --- |
| (A) | Agricultural Marketing |
| (B) | Agricultural Trading |
| (C) | Agricultural Testing |
| (D) | None of the above |

28. Which of the following is a fish poisoning?

|  |  |
| --- | --- |
| (A) | Patulin |
| (B) | Citrinin |
| (C) | Ciguatera |
| (D) | Fusarium |

29. GMO Stands for

|  |  |
| --- | --- |
| (A) | Genetically Modified Organism |
| (B) | Genetically Manufactured Oranges |
| (C) | Gross Moldy Oranges |
| (D) | Genetically Malfunctioning Organism |

30. Codex Alimentarius Commission is an inter-governmental joint commission of

|  |  |
| --- | --- |
| (A) | ICMR and NIN |
| (B) | UNICEF and UNESCO |
| (C) | FAO and WHO |
| (D) | UNICEF and FAO |

31. A more prominent chalaza indicates a …………… egg.

|  |  |
| --- | --- |
| (A) | staler |
| (B) | healthier |
| (C) | fresher |
| (D) | rounder |

32. One of the most common physical tests performed on fats is the determination of its

|  |  |
| --- | --- |
| (A) | Boiling point |
| (B) | Cooling point |
| (C) | Melting point |
| (D) | Separating point |

33. Candies such as rock candy, fondant and fudges are made from …………… sugars.

|  |  |
| --- | --- |
| (A) | Crystalline |
| (B) | Non-crystalline |
| (C) | Brown  |
| (D) | Sweet |

34. Monoglycerides and diglycerides are used in a variety of foods as

|  |  |
| --- | --- |
| (A) | Emulsifiers |
| (B) | Flavor |
| (C) | Calories |
| (D) | Color |

35. Each gram of fat contains …………… kcal.

|  |  |
| --- | --- |
| (A) | 8 |
| (B) | 9 |
| (C) | 7 |
| (D) | 6 |

36. The most widely known by-product of Corn is

|  |  |
| --- | --- |
| (A) | Glue |
| (B) | Ethanol |
| (C) | Paint |
| (D) | Lotion |

37. What happens when Fresh egg is placed in water?

|  |  |
| --- | --- |
| (A) | Floats |
| (B) | Sinks |
| (C) | Breaks |
| (D) | None of the above |

38. The sharp odor of fish is due to

|  |  |
| --- | --- |
| (A) | Trimethylamine |
| (B) | Sulphur-di-oxide |
| (C) | Ethyl chloride |
| (D) | Methyl alcohol |

39. Urea is added to milk to

|  |  |
| --- | --- |
| (A) | improve taste |
| (B) | Improve flavor |
| (C) | Increase shelf-life |
| (D) | Increase nutritive value |

40. FSSAI indicates

|  |  |
| --- | --- |
| (A) | Food Safety and Standards Authority of India |
| (B) | Food Science and Standardization Authority of India |
| (C) | Food Science and Safety Association of India |
| (D) | None of the above |

41. Botulism is caused by

|  |  |
| --- | --- |
| (A) | Clostridium species |
| (B) | Salmonella species |
| (C) | Streptococcal species |
| (D) | None of the above |

42. Bulging or swelling of cans in canned foods indicates contamination with

|  |  |
| --- | --- |
| (A) | Salmonella species |
| (B) | Streptococcus species |
| (C) | Clostridium Botulinum |
| (D) | None of the above |

43. Fresh meat should be

|  |  |
| --- | --- |
| (A) | Bright red in colour |
| (B) | Pink in colour |
| (C) | Pale |
| (D) | None of the above |

44. Organoleptic evaluation is the other name for

|  |  |
| --- | --- |
| (A) | Objective evaluation |
| (B) | Sensory evaluation |
| (C) | Physiologic evaluation |
| (D) | None of the above |

45. Which part of the fish is cut lengthwise along one side parallel to the backbone?

|  |  |
| --- | --- |
| (A) | Steaks |
| (B) | Nuggets |
| (C) | Fillets |
| (D) | Sticks |

46. Gliadin is soluble in

|  |  |
| --- | --- |
| (A) | Salt |
| (B) | Alcohol |
| (C) | Dilute acid and alkali |
| (D) | Sugar  |

47. Which of the following is a rapid pre-cooling method?

|  |  |
| --- | --- |
| (A) | Forced air Cooling |
| (B) | Hydro Cooling  |
| (C) | Vacuum Cooling |
| (D) | Evaporative Cooling |

48. As the number of carbon atoms in a chain of fatty acid increases

|  |  |
| --- | --- |
| (A) | the boiling point will be higher |
| (B) | the boiling point will be lesser |
| (C) | the melting point will be higher |
| (D) | the melting point will be lower |

49. Nature of Gliadin is

|  |  |
| --- | --- |
| (A) | Viscous |
| (B) | Elastic |
| (C) | Extensive |
| (D) | Tough |

50. Which chemical is used for controlling sprouting of onion in storage?

|  |  |
| --- | --- |
| (A) | Maleic Hydrazide  |
| (B) | Ethylene  |
| (C) | Gallic acid |
| (D) | Ascorbic acid |

51. Carnauba wax is an example for

|  |  |
| --- | --- |
| (A) | Liquid wax |
| (B) | Soft wax |
| (C) | Hard wax |
| (D) | Archaebacterial wax |

52. The number of OH groups in fats can be expressed as

|  |  |
| --- | --- |
| (A) | Polenske number |
| (B) | Reichert-Meissil number |
| (C) | Acetyl number |
| (D) | Iodine number |

53. The degree of unsaturation of lipid can be measured as

|  |  |
| --- | --- |
| (A) | Saponification number |
| (B) | Iodine number |
| (C) | Polenske number |
| (D) | Reichert-Meissil Number |

54. Naturally occurring fats are

|  |  |
| --- | --- |
| (A) | L-types |
| (B) | D-types |
| (C) | An equi-molar mixture of L and D types |
| (D) | Symmetric |

55. Tomato fruits for canning are harvested at:

|  |  |
| --- | --- |
| (A) | Mature green stage |
| (B) | Red ripe stage |
| (C) | Immature green stage |
| (D) | Half-ripe/pink stage |

56. Which of the following amino acids will be absent in α (alpha) helix structure of protein?

|  |  |
| --- | --- |
| (A) | Methionine |
| (B) | Alanine |
| (C) | Glutamic acid |
| (D) | Proline |

57. Benzoic Acid is most effective against

|  |  |
| --- | --- |
| (A) | Mould |
| (B) | Yeast |
| (C) | Bacteria |
| (D) | Virus |

58. What is the molecular formula of sucrose?

|  |  |
| --- | --- |
| (A) | C12H22O11 |
| (B) | C10H20O10 |
| (C) | C6H12O6 |
| (D) | C12H20O11 |

59. Saponification number is the number of milligrams of KOH required to saponify 1 g fat. Which of the following statement is true about saponification number?

|  |  |
| --- | --- |
| (A) | The shorter the chain length of fatty acids, the higher will be the saponification number |
| (B) | The shorter the chain length of fatty acids, the lower will be the saponification number |
| (C) | The higher the chain saturation of fatty acids, the lower will be the saponification number |
| (D) | The lower the chain saturation of fatty acids, the higher will be the saponification number |

60. The enzyme abundantly distributed in adipocytes and germinating seeds is

|  |  |
| --- | --- |
| (A) | Protease |
| (B) | Lipase |
| (C) | Cellulase |
| (D) | Nuclease |

61. Rancidity of lipids in lipid-rich food stuffs is due to:

|  |  |
| --- | --- |
| (A) | Hydrogenation of unsaturated fatty acids |
| (B) | Reduction of fatty acids |
| (C) | Oxidation of fatty acids |
| (D) | Dehydrogenation of saturated fatty acids |

62. Vitamin C, Vitamin E, BHA, BHT, and sulfites are all

|  |  |
| --- | --- |
| (A) | Flavour enhancers  |
| (B) | Antimicrobial agents |
| (C) | Additives  |
| (D) | Antioxidants  |

63. Which is the precursor of Ethylene?

|  |  |
| --- | --- |
| (A) | Tryptophan |
| (B) | Methionine |
| (C) | ABA |
| (D) | IAA |

64. Among the 20 standard protein coding amino acids, which one occurs least in proteins?

|  |  |
| --- | --- |
| (A) | Glycine |
| (B) | Alanine |
| (C) | Tryptophan |
| (D) | Methionine |

65. Double toned milk contains ……………% MF and ……………% MSNF.

|  |  |
| --- | --- |
| (A) | 1.5, 9.0  |
| (B) | 3.5, 8.5  |
| (C) | 3.0, 8.5  |
| (D) | 4.5, 8.5  |

66. Gluten is viscous and elastic in nature and is a combination of

|  |  |
| --- | --- |
| (A) | Gliadin and Glutenin |
| (B) | Glutenin and Globulin |
| (C) | Albumin and Globulin |
| (D) | Globulin and Gliadin |

67. Histones are rich in

|  |  |
| --- | --- |
| (A) | Lysine and Arginine |
| (B) | Arginine and Histidine |
| (C) | Histidine and Lysine |
| (D) | Histidine and Glycine |

68. Spinach is rich in

|  |  |
| --- | --- |
| (A) | Vitamin A |
| (B) | Vitamin B |
| (C) | Vitamin C |
| (D) | Vitamin E |

69. Bacteria prefer to use the codon CGA instead of AGA to code for Arginine. This is an example for

|  |  |
| --- | --- |
| (A) | Second genetic code |
| (B) | Nullomers |
| (C) | Transcriptional decoding |
| (D) | Allomers |

70. Which bean is used for the extraction of Guar gum?

|  |  |
| --- | --- |
| (A) | Broad bean |
| (B) | Cluster bean |
| (C) | French bean |
| (D) | Hyacinth bean |

71. Red Chillies are rich source of

|  |  |
| --- | --- |
| (A) | Vitamin A |
| (B) | Vitamin C |
| (C) | Vitamin A and C |
| (D) | Vitamin E |

72. The amino acid commonly used as an ingredient in the buffers of SDS PAGE, is

|  |  |
| --- | --- |
| (A) | Aspartic acid |
| (B) | Glutamic acid |
| (C) | Glycine |
| (D) | Aspartic acid and Lysine together |

73. Which one of the following is a Climacteric type of fruit?

|  |  |
| --- | --- |
| (A) | Banana |
| (B) | Citrus |
| (C) | Litchi |
| (D) | Grape |

74. An aldo hexose will have …………… stereoisomers.

|  |  |
| --- | --- |
| (A) | 8 |
| (B) | 10 |
| (C) | 14 |
| (D) | 16 |

75. The term "three quarterful or full three quarter" is used to denote fruit maturity in which of the following crops?

|  |  |
| --- | --- |
| (A) | Banana   |
| (B) | Mango |
| (C) | Tomato |
| (D) | Pineapple |

76. Vacuum cooling is most suitable for:

|  |  |
| --- | --- |
| (A) | Fruits |
| (B) | Tubers |
| (C) | Leafy vegetables   |
| (D) | None of the above  |

77. Maltose is a disaccharide of

|  |  |
| --- | --- |
| (A) | Glucose and galactose |
| (B) | Glucose and glucose |
| (C) | Glucose and lactose |
| (D) | Fructose and lactose |

78. Bitterness in Citrus juice is due to

|  |  |
| --- | --- |
| (A) | Sugar |
| (B) | Acid |
| (C) | Limonin |
| (D) | Vitamins |

79. Bitterness in Peach is due to

|  |  |
| --- | --- |
| (A) | Sugar |
| (B) | Malic acid |
| (C) | Hydrocyanin |
| (D) | Prunasin acid  |

80. Storage of fruits and vegetables, where the gas composition is changed from that of normal atmosphere and a precise control is maintained over the atmospheric composition during storage period, is known as:

|  |  |
| --- | --- |
| (A) | Controlled Atmospheric (CA) storage   |
| (B) | Modified Atmospheric (MA) storage |
| (C) | Cold storage |
| (D) | Hypobaric storage |

81. Which of the following is an alpha lactone?

|  |  |
| --- | --- |
| (A) | Vitamin C |
| (B) | Vitamin D |
| (C) | Vitamin A |
| (D) | Vitamin K |

82. Vitamin which is not found in Fruits and Vegetables is

|  |  |
| --- | --- |
| (A) | Vitamin A |
| (B) | Vitamin B1 |
| (C) | Vitamin B6                               |
| (D) | Vitamin B12  |

83. Which of the following is a ketotetrose?

|  |  |
| --- | --- |
| (A) | Erythrulose |
| (B) | Xylulose |
| (C) | Sorbose |
| (D) | Psicose |

84. During controlled atmospheric storage composition, which of the following set of gases is controlled?

|  |  |
| --- | --- |
| (A) | CO2, O2, N2 |
| (B) | C2H4, N2, O2 |
| (C) | CO2, CH4 , O2 |
| (D) | None of the above |

85. Which of the following sugars gives a positive result with Seliwanoff test?

|  |  |
| --- | --- |
| (A) | Sucrose |
| (B) | Glucose |
| (C) | Galactose |
| (D) | Mannose |

86. The pH at which fruits and vegetables are divided as acidic and non-acidic for thermal processing is

|  |  |
| --- | --- |
| (A) | 4.5  |
| (B) | 5.5 |
| (C) | 6.5 |
| (D) | 7.5 |

87. Select the odd one from the following

|  |  |
| --- | --- |
| (A) | Xylulose |
| (B) | Dihydroxyacetone |
| (C) | Glyceraldehyde |
| (D) | Ribulose |

88. Calliper grade is the maturity measurement for:

|  |  |
| --- | --- |
| (A) | Apple |
| (B) | Mango |
| (C) | Banana  |
| (D) | Pineapple |

89. In pre-cooling, water is mostly removed by:

|  |  |
| --- | --- |
| (A) | Convection |
| (B) | Conduction  |
| (C) | Radiation |
| (D) | None of the above |

90. Honey is adulterated using

|  |  |
| --- | --- |
| (A) | Fat  |
| (B) | Molasses  |
| (C) | Juice concentrate  |
| (D) | Corn flour  |

91. What is the maturity index for Avocado?

|  |  |
| --- | --- |
| (A) | Sugar content |
| (B) | Acid content |
| (C) | TSS |
| (D) | Oil content   |

92. Lye peeling is done at a temperature of

|  |  |
| --- | --- |
| (A) | 75°C |
| (B) | 84°C |
| (C) | 93°C  |
| (D) | 105°C |

93. Cinnamon is adulterated with

|  |  |
| --- | --- |
| (A) | Bombax bark |
| (B) | Soil  |
| (C) | Cassia bark  |
| (D) | Dried leaves  |

94. As fruits mature, the specific gravity will

|  |  |
| --- | --- |
| (A) | increase  |
| (B) | decrease |
| (C) | remain constant |
| (D) | fluctuate |

95. In Onion, pink colour is due to

|  |  |
| --- | --- |
| (A) | Anthocyanin |
| (B) | Carotene |
| (C) | Xanthophyll |
| (D) | Quercitin |

96. Glutenin is soluble in

|  |  |
| --- | --- |
| (A) | Salt |
| (B) | Alcohol |
| (C) | Dilute acid and alkali |
| (D) | Sugar  |

97. Which of the folliwng bacteria can grow in alkaline pH?

|  |  |
| --- | --- |
| (A) |  *Lactobacilli* |
| (B) |  *Vibrio cholera* |
| (C) |  *Salmonella* |
| (D) |  *Staphylococcus* |

98. Guava fruit is botanically known as a

|  |  |
| --- | --- |
| (A) | Drupe |
| (B) | Sorosis |
| (C) | Berry  |
| (D) | Pome |

99. The microbial cause of spoilage of honey is

|  |  |
| --- | --- |
| (A) | *Zygosccharomyces* |
| (B) | *Azotobactor* |
| (C) | *Fusarium* |
| (D) | *Candida* |

100. Which of the following microorganisms is commonly known as ‘Pink Bread Mould’?

|  |  |
| --- | --- |
| (A) | *Neurospora* |
| (B) | *Aspergillus* |
| (C) | *Mucor* |
| (D) | *Rhizopus* |

101. What is the threshold level of ethylene in fruits and vegetables?

|  |  |
| --- | --- |
| (A) | 0.01 µL/L   |
| (B) | 0.02 µL/L |
| (C) | 0.03 µL/L |
| (D) | 0.04 µL/L |

102. Which statement about the pyranose form of mannose is not correct?

|  |  |
| --- | --- |
| (A) | it exists as two anomeric stereoisomers |
| (B) | it reacts with Tollens' reagent to give a silver mirror. (i.e. it is a reducing sugar) |
| (C) | reaction with excess CH3I and AgOH gives a non-reducing penta-O-methyl derivative |
| (D) | it resists reduction with aqueous sodium borohydride |

103. Which two of the following aldohexoses give the same osazone derivative?

  

|  |  |
| --- | --- |
| (A) | 1 and 4 |
| (B) | 1 and 3 |
| (C) | 2 and 3 |
| (D) | 3 and 4 |

104. MSG is used as

|  |  |
| --- | --- |
| (A) | colour enhancer |
| (B) | thickening agent |
| (C) | flavour enhancer |
| (D) | emulsifier |

105. Which of the following methods selectively cleaves a peptide at methionine residues?

|  |  |
| --- | --- |
| (A) | trypsin digestion |
| (B) | cyanogen bromide |
| (C) | chymotrypsin digestion |
| (D) | Edman degradation |

106. What is invert sugar, and why is it so named?

|  |  |
| --- | --- |
| (A) | The sugar mixture from hydrolysis of sucrose; fructose is isomerized to glucose |
| (B) | The sugar mixture from hydrolysis of sucrose; the optical rotation changes from (+) to (–) |
| (C) | The Sugar mixture from hydrolysis of starch; α-glycosidic bonds are changed to β-glycosidic bonds |
| (D) | The sugar mixture from hydrolysis of starch; glucose is isomerized to fructose |

107. HIC is

|  |  |
| --- | --- |
| (A) | Hydrophilic Interaction Chromatography |
| (B) | Hydrophilic Intermediate Chromatography |
| (C) | Hydrophobic Interaction Chromatography |
| (D) | Hydrophobic Intermediate Chromatography |

108. The amino acid cysteine often forms a disulfide bond with another nearby cysteine.
This reaction is best classified as

|  |  |
| --- | --- |
| (A) | An addition |
| (B) | A substitution |
| (C) | An oxidation |
| (D) | A reduction |

109. Which of the following statements most correctly defines the isoelectric point?

|  |  |
| --- | --- |
| (A) | The pH at which all molecular species are ionized and that carry the same charge |
| (B) | The pH at which all molecular species are neutral and uncharged |
| (C) | The pH at which half the molecular species are ionized (charged) and the other half unionized |
| (D) | The pH at which negatively and positively charged molecular species are present in equal concentration |

110. Which of the following is a general characteristic of those natural products classified as lipids?

|  |  |
| --- | --- |
| (A) | They are generally insoluble in water and soluble in organic solvents |
| (B) | They are generally soluble in water and insoluble in organic solvents |
| (C) | They have the common structural feature of two or more fused carbon rings |
| (D) | They generally have a high weight proportion of oxygen (> 40%) |

111. The Michaelis-Menton equation relates the rate of an enzyme-catalysed reaction to which of the following?

|  |  |
| --- | --- |
| (A) | Substrate concentration |
| (B) | Product concentration |
| (C) | Activation energy |
| (D) | Inhibitor concentration |

112. Which of the following statements is untrue about protein secondary structure?

|  |  |
| --- | --- |
| (A) | The alpha helix, beta pleated sheet and beta turns are examples of protein secondary structure |
| (B) | The ability of peptide bonds to form intramolecular hydrogen bonds is important to secondary structure |
| (C) | The steric influence of amino acid residues is important to secondary structure |
| (D) | The hydrophilic/hydrophobic character of amino acid residues is important to secondary structure |

113. The enzyme enterokinase helps in the conversion of

|  |  |
| --- | --- |
| (A) | Caseinogens into casein |
| (B) | Trysionogen into trypsin |
| (C) | Pepsinogen into pepsin |
| (D) | Proteins into polypeptides |

114. The formation of cystine occurs at

|  |  |
| --- | --- |
| (A) | Endoplasmic Reticulum |
| (B) | Golgi apparatus |
| (C) | Cytosol |
| (D) | Mitochondria |

115. The device that helps to detect the odour and flavour of a food sample is

|  |  |
| --- | --- |
| (A) | electronic nose |
| (B) | electronic detector |
| (C) | electronic analyser  |
| (D) | electronic odour separator  |

116. Which of the following statements is false with respect to an enzyme's ability to catalyse a reaction?

|  |  |
| --- | --- |
| (A) | An enzyme provides a reaction surface and a suitable environment for the reaction to take place. |
| (B) | An enzyme binds reactants such that they are positioned correctly and can attain their transition-state configurations. |
| (C) | An enzyme allows the reaction to go through a less stable transition state than would normally be the case. |
| (D) | An enzyme can weaken bonds in reactants through the binding process. |

117. Which of the following is a group of proteolytic enzymes?

|  |  |
| --- | --- |
| (A) | Bromelin and Papain |
| (B) | Cellulase and Myrosinase |
| (C) | Maltase and Diastase |
| (D) | Phosphatase and Chlorophyllase |

118. Histidine is degraded to α-ketoglutarate and is described as a

|  |  |
| --- | --- |
| (A) | Gluco amino acid |
| (B) | Glucogenic amino acid |
| (C) | Ketogenic amino acid |
| (D) | Keto-gluco acid |

119. Identify the correct name of the following peptide.



|  |  |
| --- | --- |
| (A) | L-alanyl-L-phenylalanyl-glycine |
| (B) | glycyl-L-phenylalanyl-L-alanine |
| (C) | L-phenylalanyl-L-alanyl-glycine |
| (D) | L-alanyl-glycyl-L-phenylalanine |

120. Identify the strongest form of intermolecular bonding that could be formed involving the residue of the amino acid, serine.

|  |  |
| --- | --- |
| (A) | Ionic bond |
| (B) | Hydrogen bond |
| (C) | van der Waals interactions |
| (D) | None of the above |

121. Which of the following statements is incorrect regarding transport proteins?

|  |  |
| --- | --- |
| (A) | They are present in cell membranes |
| (B) | They serve to carry polar molecules across the hydrophobic cell membranes |
| (C) | They are required to transport amino acids across cell membranes |
| (D) | They are required to transport hydrophobic steroids across cell membranes |

122. Beta-oxidation of fatty acids takes place at

|  |  |
| --- | --- |
| (A) | Peroxisomes |
| (B) | Mitochondria |
| (C) | Mitochondria and Peroxisomes |
| (D) | Mitochondria, Peroxisomes and ER |

123. ‘Solidity’ is the maturity index for

|  |  |
| --- | --- |
| (A) | Root vegetables |
| (B) | Seed vegetables |
| (C) | Leafy vegetables  |
| (D) | Cucurbits |

124. Cider is the product obtained from

|  |  |
| --- | --- |
| (A) | Fermentation of Plum |
| (B) | Fermentation of Peach |
| (C) | Fermentation of Apple |
| (D) | Fermentation of Rice |

125. Bony armor fishes are

|  |  |
| --- | --- |
| (A) | Placoderms |
| (B) | Ostracoderms |
| (C) | Elasmobranchs |
| (D) | None of the above |

126. Which of the following fishes are viviparous?

|  |  |
| --- | --- |
| (A) | Chimeras |
| (B) | Sharks |
| (C) | Lamprey |
| (D) | Salmons |

127. Elasmobranchs remove Sodium Chloride through:

|  |  |
| --- | --- |
| (A) | Gills |
| (B) | Rectal glands |
| (C) | Liver |
| (D) | Kidney |

128. How many chambers are there in the heart of fishes?

|  |  |
| --- | --- |
| (A) | 1 |
| (B) | 3 |
| (C) | 4 |
| (D) | 2 |

129. Fishes that live in stagnant water are

|  |  |
| --- | --- |
| (A) | Protopterus |
| (B) | Lepidosiren |
| (C) | Neceratodus |
| (D) | Sturecons |

130. Placoid scales are present in

|  |  |
| --- | --- |
| (A) | Hag fishes |
| (B) | Lamprey |
| (C) | Salmons |
| (D) | Sharks |

131. Which among the following are cartilaginous fishes?

|  |  |
| --- | --- |
| (A) | Osteichthyes |
| (B) | Chondrichthyes |
| (C) | Acanthodians |
| (D) | Placoderms |

132. Which one of the following is a true fish?

|  |  |
| --- | --- |
| (A) | Cattle fish |
| (B) | Star fish |
| (C) | Jelly fish |
| (D) | Dog fish |

133. Migration of fishes from fresh water to marine water for reproduction is known as

|  |  |
| --- | --- |
| (A) | Catadromonous |
| (B) | Potamodromous |
| (C) | Amphidromous |
| (D) | Anadromous |

134. Dorsal fin erosion in fishes is due to the deficiency of

|  |  |
| --- | --- |
| (A) | Leucine |
| (B) | Histidine |
| (C) | Lysine |
| (D) | Tryptophan |

135. Beche-de-Mere is obtained from

|  |  |
| --- | --- |
| (A) | Sea cucumber |
| (B) | Seafen |
| (C) | Sea lily  |
| (D) | Sea turtle |

136. The Indian edible oyster is

|  |  |
| --- | --- |
| (A) | *Crassostrea madrasensis* |
| (B) | *Vanma litterata* |
| (C) | *Sepia aculeate* |
| (D) | *Perna viridis* |

137. The chemical which is used to induce triploids in fishes

|  |  |
| --- | --- |
| (A) | Calcium oxide |
| (B) | Hydrochloric acid  |
| (C) | Sulphuric acid |
| (D) | Nitrous oxide |

138. Sea weeds are rich sources of

|  |  |
| --- | --- |
| (A) | Protein |
| (B) | Fat  |
| (C) | Carbohydrate |
| (D) | Iodine |

139. Biodrum refers to

|  |  |
| --- | --- |
| (A) | Weeder |
| (B) | Cutter |
| (C) | Biofilter |
| (D) | Ozonizer |

140. Lordosis and scoliosis are due to the deficiency of

|  |  |
| --- | --- |
| (A) | Vitamin C |
| (B) | Vitamin A |
| (C) | Vitamin B complex |
| (D) | Vitamin D |

141. Seaweed, Nymphea produces

|  |  |
| --- | --- |
| (A) | Agar |
| (B) | Caragenen |
| (C) | Biotoxin |
| (D) | Alginic acid |

142. The national fish of India is

|  |  |
| --- | --- |
| (A) | *Lebeo rohita* |
| (B) | *Clarias batrachus* |
| (C) | *Catla catla* |
| (D) | *Rostrelliger kauagurta* |

143. ‘Induced breeding technique’ is used in

|  |  |
| --- | --- |
| (A) | Marine fishery  |
| (B) | Capture fishery |
| (C) | Inland fishery |
| (D) | Culture fishery |

144. Smoking is used as a technique of

|  |  |
| --- | --- |
| (A) | Mushroom cultivation  |
| (B) | Pulses cultivation |
| (C) | Pickle preservation  |
| (D) | Fish preservation |

145. Identify the edible freshwater telcost

|  |  |
| --- | --- |
| (A) | *Catla catla* |
| (B) | Rays and Skates |
| (C) | *Hilsa ilisha* |
| (D) | Sharks |

146. The larva of lamprey is

|  |  |
| --- | --- |
| (A) | Tonaria |
| (B) | Tadpole |
| (C) | Trochophore |
| (D) | Ammocoete |

147. Which of the following fishes show aestivation?

|  |  |
| --- | --- |
| (A) | Lepidosiren |
| (B) | Protopterus |
| (C) | Neoceratodus |
| (D) | None of the above |

148. Expand AFD

|  |  |
| --- | --- |
| (A) | Accelerated Fish Drying |
| (B) | Accelerated Frequency Drying  |
| (C) | Accelerated Force Drying |
| (D) | Accelerated Freeze Drying |

149. Phosphatase test is used in the analysis of

|  |  |
| --- | --- |
| (A) | milk |
| (B) | tea |
| (C) | water |
| (D) | coffee |

150. What is the reason for blanching vegetables prior to freezing?

|  |  |
| --- | --- |
| (A) | To denature enzymes |
| (B) | To prevent microbial activity |
| (C) | To improve texture |
| (D) | To maintain colour |

