



## Dr.G.R.Damodaran College of Science

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I BSC [2017-2020]

SEMESTER I

CORE: BIOCHEMISTRY AND ENZYMOLOGY - 109B

Multiple Choice Questions.

1. Maltose consists of

- A. Glucose alpha 1,4 linkage
- B. Glucose beta 1,4 linkage
- C. Glucose alpha 1,6 linkage
- D. Glucose beta 1,6 linkage

ANSWER: A

2. Which one of the following is NOT an epimer of other types?

- A. Glucose.
- B. Fructose.
- C. Galactose.
- D. Mannose.

ANSWER: B

3. The alpha and beta isomers of glucose are also called \_\_\_\_\_.

- A. positive and negative types.
- B. D and L types.
- C. anomers.
- D. epimers.

ANSWER: C

4. Which of the following is a pentose sugar?

- A. D-Ribulose.
- B. D-Erythrose.
- C. L-Glucose.
- D. L-Fructose.

ANSWER: A

5. Which one of the following is an aldotriose

- A. Dihydroxy acetone
- B. Glyceraldehyde
- C. Ribulose
- D. Erythrose

ANSWER: B

6. Which one of the following does not possess glucose?

- A. Starch.
- B. Glycogen. .
- C. Inulin.
- D. Cellulose.

ANSWER: C

7. Which of the following compounds is responsible for coordinated regulation of glucose and glycogen metabolism?

- A. NAD<sup>+</sup>.
- B. Fructose 2,6 bisphosphate.
- C. Acetyl-CoA.
- D. Fructose 1,6 bisphosphate.

ANSWER: B

8. Which one of the following is a keto triose

- A. xylulose
- B. erythrulose
- C. Mannose.
- D. Galactose.

ANSWER: B

9. Monosaccharides

- A. Contain two glucose units
- B. have cyclic structure
- C. Have branched structure
- D. not soluble in water

ANSWER: B

10. Humans are unable to digest

- A. starch.
- B. complex carbohydrates.
- C. denatured proteins.
- D. cellulose.

ANSWER: D

11. Six membered ring structure of glucose is called as?

- A. Glucopyranose
- B. Glucofuranose
- C. Hemiacetal
- D. hemiketal

ANSWER: A

12. Hydrolysis of lactose yields

- A. galactose and fructose.
- B. galactose and glucose.
- C. glucose and fructose.
- D. fructose and galactose.

ANSWER: B

13. Which is the form of glucose is more stable and predominant in nature?

- A. boat form
- B. chair form
- C. open chain form
- D. both A and B

ANSWER: B

14. Which one of the following disaccharide is an invert sugar?

- A. Maltose.
- B. Lactose.
- C. Sucrose.
- D. Tetrose.

ANSWER: C

15. Which one of the following resembles closely to glycogen in its structure?

- A. Amylose.
- B. Amylopectin.

- C. Inulin.
  - D. Cellulose.
- ANSWER: B

16. Which one of the following polysaccharide is a glucosan?

- A. Starch.
  - B. Trehalose.
  - C. Inulin.
  - D. Cellulose.
- ANSWER: A

17. Which one of the following is a sugar alcohol

- A. Arabitol
  - B. Manitol
  - C. Sorbitol
  - D. All of the above
- ANSWER: D

18. Waxes are esters of fatty acids with \_\_\_\_\_.

- A. Glycerol.
  - B. Higher monohydric alcohols.
  - C. Groups in addition to an alcohol.
  - D. Both b and c.
- ANSWER: B

19. Cephalins are phospholipids containing \_\_\_\_\_.

- A. Choline.
  - B. Ethanolamine.
  - C. Serine.
  - D. Inositol.
- ANSWER: B

20. Derived lipids are derivatives of lipids possessing the general characteristics of lipids and are obtained by \_\_\_\_\_.

- A. Hydrolysis.
  - B. Oxidation.
  - C. Reduction.
  - D. Heating.
- ANSWER: A

21. Which one of the following is a milk sugar

- A. Galactose
  - B. Lactose
  - C. Maltose
  - D. Isomaltose
- ANSWER: B

22. Fatty acids of lipids are generally \_\_\_\_\_.

- A. Branched chain.
  - B. Cyclic chain.
  - C. Linear chain with even number of carbon atoms.
  - D. Linear chain with odd number of carbon atoms.
- ANSWER: C

23. Fatty acids are usually expressed by formula indicating \_\_\_\_\_.

- A. The number of carbon atoms.
- B. The number of double bonds.
- C. The position of double bonds.

D. All of the above.

ANSWER: D

24. Deficiency of essential fatty acids in humans causes \_\_\_\_\_.

- A. Eczema like dermatitis.
- B. Degenerative changes in arterial wall.
- C. Fatty liver.
- D. All of the above.

ANSWER: D

25. Cholesterol is a \_\_\_\_\_.

- A. Glycolipid.
- B. Phospholipids.
- C. Fatty acid.
- D. Steroid.

ANSWER: D

26. Which one of the following is a cyclic fatty acid

- A. Cerebronic acid
- B. Ricinoleic acid
- C. chaul moorgic acid
- D. oleic acid

ANSWER: C

27. Specific gravity of lipid is

- A. 0.2
- B. 0.8
- C. 1.0
- D. 1.5

ANSWER: B

28. The alcohol present in the phospholipids is \_\_\_\_\_.

- A. Glycerol.
- B. Inositol.
- C. sphingosine.
- D. Any of the above.

ANSWER: D

29. Proteins are polymers of \_\_\_\_\_.

- A. Sugar.
- B. Amino acids.
- C. Fatty acids.
- D. Nucleotides.

ANSWER: B

30. In all the amino acids of proteins, the carboxyl group is attached to alpha carbon but the amino group is attached to \_\_\_\_\_.

- A. Alpha carbon.
- B. beta carbon.
- C. Gamma carbon.
- D. Side chain.

ANSWER: A

31. Which one of the following is an aromatic neutral amino acid?

- A. Alanine.
- B. Leucine.
- C. Tyrosine.
- D. Threonine.

ANSWER: C

32. Which one of the following is a sulphur containing amino acids?

- A. Valine.
- B. Isoleucine.
- C. Glutamine.
- D. Cysteine.

ANSWER: D

33. Which one of the following is an aromatic amino acid?

- A. Methionine.
- B. Phenylalanine.
- C. Tyrosine.
- D. Tryptophan.

ANSWER: A

34. Which one of the following is NOT a basic amino acid?

- A. Lysine.
- B. Arginine.
- C. Leucine.
- D. Histidine.

ANSWER: C

35. Which one of the following is an iminoacid?

- A. Threonine.
- B. Proline.
- C. Tryptophan.
- D. Lysine.

ANSWER: B

36. Which one of the following amino acid is deficient in proteins of pulses?

- A. Threonine.
- B. Methionine.
- C. Tryptophan.
- D. Both b and c.

ANSWER: D

37. Which of the following amino acid have the buffering capacity at physiological pH

- A. Threonine.
- B. Isoleucine.
- C. Histidine
- D. Alanine.

ANSWER: C

38. Simple proteins like keratins, collagens and elastins are collectively known as\_\_\_\_\_.

- A. gliadins.
- B. globulins.
- C. scleroproteins.
- D. protamines.

ANSWER: C

39. Non protein part of conjugated proteins is known as \_\_\_\_\_.

- A. holoprotein.
- B. apoprotein.
- C. prosthetic groups.
- D. both b and c.

ANSWER: C

40. Which one of the following is a metalloprotein?

- A. Ferritin.
- B. Carbonic anhydrase
- C. Cerruloplasmin.
- D. All of the above.

ANSWER: D

41. Which one of the following is NOT the primary derived protein?

- A. Proteans.
- B. Proteases.
- C. Metaproteins.
- D. Coagulated proteins.

ANSWER: B

42. Which one of the following properties of aminoacids is NOT due to carboxyl group?

- A. Formation of ester with the alcohol.
- B. Reduction to amino alcohol by lithium aluminium hydrides.
- C. Formation of salt with acids.
- D. Formation of amines by decarboxylation.

ANSWER: C

43. Which one of the following is a structural polysaccharide

- A. Starch
- B. Cellulose
- C. Chitin
- D. Both B and C

ANSWER: D

44. Partial hydrolysis of starch yields

- A. Glucose
- B. Fructose
- C. Dextrin
- D. None of the above

ANSWER: C

45. Mobile carrier of Electron Transport Chain is cytochrome \_\_\_\_\_.

- A. a
- B. b
- C. c
- D. c1

ANSWER: C

46. Glycolysis operates in \_\_\_\_\_.

- A. endoplasmic reticulum.
- B. cytoplasm.
- C. mitochondria.
- D. golgi apparatus.

ANSWER: B

47. Amylose reacts with with iodine to give

- A. Purple colour
- B. Blue colour
- C. Red colour
- D. No Colour

ANSWER: B

48. Enzyme glucokinase is found in \_\_\_\_\_.

- A. liver.

- B. kidney.
- C. heart muscle.
- D. all tissues.

ANSWER: A

49. Site of gluconeogenesis is \_\_\_\_\_.

- A. skeletal.
- B. kidney.
- C. heart muscle.
- D. both b and c.

ANSWER: D

50. First discovered amino acid is?

- A. Asparagine
- B. Aspartate
- C. Glutamate
- D. Glutamine

ANSWER: B

51. Beta oxidation of fatty acids occurs in \_\_\_\_\_.

- A. mitochondria
- B. microsomes.
- C. peroxisomes.
- D. cytoplasm.

ANSWER: A

52. Which one of the following enzyme is involved in the transport of fatty acyl CoA from cytosol to mitochondrial matrix?

- A. Carnitine palmitoyl transferase I.
- B. Carnitine palmitoyl transferase II.
- C. Carnitine acyl carnitine translocase.
- D. All of the above.

ANSWER: D

53. Total gain of ATP in complete oxidation of one molecule of palmitic acid is \_\_\_\_\_.

- A. 121.
- B. 129.
- C. 131.
- D. 139.

ANSWER: B

54. Name a non-reducing disaccharide.

- A. Sucrose.
- B. Maltose.
- C. Lactose.
- D. Inulin.

ANSWER: A

55. The carbohydrate that is taken as a reference for writing the configuration of others \_\_\_\_\_.

- A. Ribose.
- B. Glyceraldehyde.
- C. Fructose.
- D. Glucose.

ANSWER: B

56. Which of the sugar is called as animal sugar

- A. Starch
- B. Glycogen

- C. Trehalose
  - D. Cellulose
- ANSWER: B

57. Pyruvate is initially converted to which of the following in the gluconeogenesis?

- A. Glycerol.
- B. Phosphoenol pyruvate.
- C. Oxaloacetate.
- D. Acetyl CoA.

ANSWER: C

58. The glycosidic bonds at the branching points in the structure of starch are alpha\_\_\_\_\_.

- A. 1,4.
- B. 1,6.
- C. 1,5.
- D. 1,2.

ANSWER: B

59. The glycosaminoglycan that serves as a lubricant and shock absorbent of joints is \_\_\_\_\_.

- A. chondroitin.
- B. chondroitin sulphate.
- C. hyaluronic acid.
- D. keratan sulphate.

ANSWER: C

60. The lipids that function as fuel reserve in animals are \_\_\_\_\_.

- A. triacylglycerols.
- B. monoacylglycerols.
- C. diacylglycerols.
- D. glycerols.

ANSWER: A

61. The isomerism associated with unsaturated fatty acids is \_\_\_\_\_.

- A. cis trans.
- B. tautomerism.
- C. geometric.
- D. enolization.

ANSWER: C

62. The number of mg of KOH required to hydrolyse 1 g fat or oil is known as \_\_\_\_.

- A. iodine number.
- B. saponification number.
- C. acid number.
- D. reichert-meissl number.

ANSWER: B

63. Name the cyclic ring present in the steroids.

- A. Cyclopentanophenanthrene.
- B. Cycloperhydrophenanthrene.
- C. Cyclopentanoperhydro.
- D. Cyclopentanoperhydrophenanthrene.

ANSWER: D

64. What is the average nitrogen content of proteins?

- A. 15%.
- B. 16%.
- C. 17%.
- D. 20%.



ANSWER: B

65. Which of the following amino acid has more polarity?

- A. Lysine
- B. Arginine
- C. Histidine
- D. Glycine

ANSWER: B

66. Most abundant extracellular structural polysaccharides in plants

- A. Cellulose
- B. Chitin
- C. Starch
- D. Glycogen

ANSWER: A

67. Which of the following is a purine?

- A. Cytosine
- B. Adenine
- C. Thymine
- D. Uracil

ANSWER: B

68. The bonds forming the backbone of protein structure is \_\_\_\_\_.

- A. amide.
- B. peptide.
- C. ionic.
- D. disulphide.

ANSWER: B

69. Which of the following is Poly unsaturated Fatty acid

- A. Linoleic acid
- B. Linolenic acid
- C. Arachidonic acid
- D. All the above

ANSWER: D

70. What is the chemical name of Sangers reagent?

- A. FDNB.
- B. DNFB.
- C. FBND.
- D. DBFN.

ANSWER: A

71. The fundamental unit of genetic information is known as \_\_\_\_\_.

- A. genome.
- B. proteome.
- C. histone.
- D. gene.

ANSWER: D

72. DNA controls protein synthesis through the mediation of \_\_\_\_\_.

- A. protein.
- B. DNA.
- C. RNA.
- D. gene.

ANSWER: C

73. Ribose and deoxyribose differ in their structure around carbon atom \_\_\_\_\_.

- A. 1.
- B. 2.
- C. 3.
- D. 4.

ANSWER: B

74. Nucleotide is composed of \_\_\_\_\_.

- A. sugar,base, phosphate
- B. sugar, base.
- C. sugar,phosphate.
- D. base, phosphate.

ANSWER: A

75. The scientist who observed that there exist a relationship between the contents of purines and pyrimidines in DNA structure is \_\_\_\_\_.

- A. Watson.
- B. Crick.
- C. Chargoff.
- D. Griffith.

ANSWER: C

76. The base pair G-C is more stable and stronger than A-T due to \_\_\_\_\_ bonds.

- A. 3 hydrogen.
- B. 3 peptide.
- C. 3 ionic.
- D. 3 electrostatic.

ANSWER: A

77. The most stabilizing force for nucleic acids is

- A. hydrogen bonds.
- B. electrostatic bond.
- C. Van der Waals.
- D. conformational entropy.

ANSWER: C

78. The acceptor arm of tRNA contains the capped nucleotide sequence \_\_\_\_\_.

- A. CCA.
- B. ACA.
- C. AAC.
- D. AAA.

ANSWER: A

79. Name the place at which the substrate binds with the enzyme?

- A. Allosteric site.
- B. Modulator site.
- C. Active site.
- D. Inhibitor site.

ANSWER: C

80. The very first enzyme elevated in serum in myocardial infarction is \_\_\_\_\_.

- A. creatine kinase.
- B. creatine phosphokinase.
- C. lactate dehydrogenase.
- D. aspartate transaminase.

ANSWER: B

81. Which amino acid is a lipotropic factor?

- A. Lysine.
- B. Leucine.
- C. Tryptophan.
- D. Methionine.

ANSWER: D

82. Which among the following is a nutritionally essential amino acid for man?

- A. Tryptophan.
- B. Alanine.
- C. Glycine.
- D. Tyrosine.

ANSWER: A

83. The essential amino acids \_\_\_\_\_.

- A. must be supplied in the diet because the organism has lost the capacity to aminate the corresponding keto acids.
- B. must be supplied in the diet because the human has an impaired ability to synthesize the carbon chain of the corresponding keto acids.
- C. are identical in all species studied.
- D. are defined as those aminoacids which cannot be synthesized by the organism at a rate adequate to meet metabolic requirements.

ANSWER: B

84. Which one among the following is a basic amino acid?

- A. Asparagine.
- B. Arginine.
- C. Proline.
- D. Alanine.

ANSWER: B

85. Which one of the following amino acid contains a guanidine group?

- A. Histidine.
- B. Citrulline.
- C. Arginine.
- D. Ornithine.

ANSWER: C

86. Ring shaped sugar molecules are linked by

- A. carboxyl bond
- B. hydroxyl bond
- C. covalent bond
- D. Glycosidic bond

ANSWER: D

87. When amino acids are treated with neutral formaldehyde the pH of the mixture \_\_\_\_\_.

- A. is not altered.
- B. increases.
- C. first increases then decreases.
- D. decreases.

ANSWER: D

88. Which one of the following has an imidazole group?

- A. Histidine.
- B. Tryptophan.
- C. Proline.
- D. Hydroxyproline.

ANSWER: A

89. Which one of the following amino acid contain the usual carboxylic acid group?

- A. Alanine.
- B. Tryptophan.
- C. Methionine.
- D. Taurine.

ANSWER: D

90. An amino acid which contains a disulphide bond is \_\_\_\_\_.

- A. lysine.
- B. methionine.
- C. homocysteine.
- D. cystine.

ANSWER: D

91. Branched chain amino acids are \_\_\_\_\_.

- A. cysteine and cystine.
- B. tyrosine and tryptophan.
- C. glycine and serine.
- D. valine and isoleucine.

ANSWER: D

92. Globulins and albumins are defined as \_\_\_\_\_.

- A. derived proteins.
- B. conjugated proteins.
- C. simple globular proteins.
- D. lipoproteins.

ANSWER: C

93. Glucose and mannose are epimers. This means that \_\_\_\_\_.

- A. they are mirror images of each other.
- B. one is an aldose, the other a ketose.
- C. one is a pyranose, the other a furanose.
- D. they differ only in the configuration of one carbon atom.

ANSWER: D

94. Thymine is a \_\_\_\_\_.

- A. water soluble vitamin.
- B. fat soluble vitamin.
- C. pyrimidine.
- D. purine.

ANSWER: C

95. There are two distinct stereoisomeric modifications of glucose which are interconverted in aqueous solution to yield an equilibrium mixture. This phenomenon is termed as \_\_\_\_\_.

- A. mutarotation.
- B. polarization.
- C. optical isomerism.
- D. amphoterism.

ANSWER: A

96. Glucose is a/an \_\_\_\_\_.

- A. oligosaccharide.
- B. aldohexose.
- C. aldopentose.
- D. ketohexose.

ANSWER: B

97. Which of the following is a constituent of hemolymph of insects

- A. Isomaltose
- B. Galactose
- C. Trehalose
- D. lactose

ANSWER: C

98. Cerebrosides consist of mostly \_\_\_\_\_ sugar.

- A. glucose.
- B. fructose.
- C. arabinose.
- D. galactose.

ANSWER: D

99. Sphingosine is a/an \_\_\_\_\_.

- A. complex aminoalcohol.
- B. unsaturated fatty acid.
- C. saturated fatty acid.
- D. sterol.

ANSWER: A

100. Both starch and glycogen are polymers of \_\_\_\_\_.

- A. glucose.
- B. fructose.
- C. mannose.
- D. galactose.

ANSWER: A

101. Fructose can be differentiated from glucose by \_\_\_\_\_.

- A. Osazone test.
- B. Foulgers test.
- C. Benedicts test.
- D. Fehlings test.

ANSWER: B

102. Sucrose answers \_\_\_\_\_ test.

- A. Benedict's.
- B. Barfoed's.
- C. Fehling's.
- D. Seliwanoff's.

ANSWER: D

103. Mention a nonreducing disaccharide.

- A. Lactose.
- B. Maltose.
- C. Sucrose.
- D. Isomaltose.

ANSWER: C

104. Enzymes are

- A. Carbohydrate
- B. RNA
- C. Protein
- D. Fats

ANSWER: C

105. Chemically heparin is a \_\_\_\_\_.

- A. purine.
- B. protein.

- C. lipid.
  - D. carbohydrate.
- ANSWER: D

106. RNA molecules that exhibit catalytic activity are called \_\_\_\_\_.

- A. mRNAs.
- B. ribonucleases.
- C. ribosomes.
- D. ribozymes.

ANSWER: D

107. The conversion of pyruvate to oxaloacetate is likely to require which of the following coenzymes?

- A. Biotin.
- B. Thiamine pyrophosphate.
- C. Pyridoxal phosphate.
- D. Flavin adenine dinucleotide.

ANSWER: A

108. Which of the following takes place during oxidative phosphorylation in mitochondria?

- A. Protons are pumped from the intermembrane space to the matrix.
- B. Protons are pumped from the matrix to the intermembrane space.
- C. Electrons are pumped from the intermembrane space to the matrix
- D. Electrons are pumped from the matrix to the intermembrane space.

ANSWER: B

109. Maximum enzyme activity is observed at \_\_\_\_\_ pH.

- A. acidic.
- B. neutral.
- C. basic.
- D. optimum.

ANSWER: D

110. Which one of the following types of bonds or interactions is LEAST likely to be involved in stabilizing the 3D folding of most proteins?

- A. Ester.
- B. Hydrogen.
- C. Disulphide.
- D. Electrostatic.

ANSWER: A

111. In animals, an enzyme unique to gluconeogenesis is \_\_\_\_\_.

- A. enolase.
- B. fructose 1,6-bisphosphatase.
- C. aldolase.
- D. phosphoglyceromutase.

ANSWER: B

112. Which one of the following is meant by the statement that glucose and mannose are epimers?

- A. They differ only in the configuration about one carbon atom.
- B. One is an aldose and the other is a ketose.
- C. One is a pyranose and the other is a furanose
- D. They are mirror images of each other.

ANSWER: A

113. The rate-limiting step of fatty acid synthesis is catalyzed by \_\_\_\_\_.

- A. acetyl CoA carboxylase.
- B. malic enzyme.
- C. thiolase.

D. pyruvate dehydrogenase.

ANSWER: A

114. A water soluble globular protein is most likely to have the highest proportion of which of the following amino acid residues buried within its core?

- A. Serine.
- B. Histidine.
- C. Isoleucine.
- D. Lysine.

ANSWER: C

115. Which of the following six-membered ring compounds has the most planar structure?

- A. Glucose.
- B. Cytosine.
- C. Inositol.
- D. Mannose.

ANSWER: B

116. Substrate level phosphorylation in the citric acid cycle depends directly on the energy of the \_\_\_\_\_.

- A. thioester bond of succinyl CoA.
- B. oxidative decarboxylation of isocitrate.
- C. formation of citrate.
- D. FAD dependent oxidation of succinate.

ANSWER: A

117. Which among the following is a citric acid cycle enzyme?

- A. Aconitase.
- B. Catalase.
- C. Arginase.
- D. Asparaginase.

ANSWER: A

118. Which of the following is INCORRECT?

- A. Sucrose cannot form an osazone.
- B. Inulin is a fructosan.
- C. Glycogen is a hexosan.
- D. Starch is a pentosan.

ANSWER: D

119. Glycerol is a/an \_\_\_\_\_.

- A. sugar.
- B. fatty acid.
- C. polyhydric alcohol.
- D. aldehyde.

ANSWER: C

120. Saponification is the hydrolysis of fat by \_\_\_\_\_.

- A. enzyme.
- B. alkali.
- C. acid.
- D. heating with water.

ANSWER: B

121. If the choline-moiety of lecithin is replaced by ethanolamine, the compound produced is a/an \_\_\_\_\_.

- A. sphingomyelin.
- B. cerebroside.

- C. inositide.
  - D. cephalin.
- ANSWER: D

122. The enzyme which digests fat is \_\_\_\_\_.

- A. ptyalin.
- B. renin.
- C. lipase.
- D. amylase.

ANSWER: C

123. Which one of the following is an unsaturated fatty acid?

- A. Palmitic acid.
- B. Stearic acid.
- C. Caproic acid.
- D. Linoleic acid.

ANSWER: D

124. A carbon atom in a molecule becomes an asymmetric centre when it bears \_\_\_\_\_.

- A. four different substituents.
- B. a pair of like and a pair of unlike substituents.
- C. a double bond.
- D. three different substituents.

ANSWER: A

125. Fructose is a/an \_\_\_\_\_.

- A. aldohexose.
- B. ketohexose.
- C. aldopentose.
- D. oligosaccharide.

ANSWER: B

126. Fucose is a \_\_\_\_\_.

- A. glycoside.
- B. hexose.
- C. triose.
- D. methyl pentose.

ANSWER: D

127. The end product of the acid hydrolysis of glycogen is \_\_\_\_\_.

- A. dextrin.
- B. amylopectin.
- C. glucose.
- D. maltose.

ANSWER: C

128. Enzymes are chemically \_\_\_\_\_.

- A. proteins.
- B. lipids.
- C. lipoproteins.
- D. carbohydrates.

ANSWER: A

129. The term enzymes is coined by

- A. Pasteur
- B. Buchner
- C. Urey Miller
- D. Kuhne



ANSWER: D

130. Which among the following is a reducing disaccharide?

- A. Cellulose.
- B. Sucrose.
- C. Lactose.
- D. Galactose.

ANSWER: C

131. Mild oxidation of glucose using bromine water yields \_\_\_\_\_.

- A. glucuronic acid.
- B. glucaric acid.
- C. mucic acid.
- D. gluconic acid.

ANSWER: D

132. Which among the following is NOT a nucleoside?

- A. Adenosine.
- B. Guanosine.
- C. Cytosine.
- D. Inosine.

ANSWER: D

133. Nucleic acids contain \_\_\_\_\_.

- A. lysine.
- B. arginine.
- C. alanine.
- D. adenine.

ANSWER: D

134. Steroid is known as sterol when it contains \_\_\_\_\_ group.

- A. OH.
- B. COOH.
- C. CHO.
- D. CO

ANSWER: A

135. Iodine value of oil shows the extent of \_\_\_\_\_.

- A. polymerization.
- B. molecular size.
- C. unsaturation
- D. esterification

ANSWER: D

136. Which one of the following is a sterol?

- A. Glycerol.
- B. Provitamin D.
- C. Choline
- D. Plasmalogens

ANSWER: B

137. Which one of the following is NOT present in lecithins?

- A. Glycerol.
- B. Phosphoric acid.
- C. Choline.
- D. Ethanolamine.

ANSWER: D

138. Gangliosides contain \_\_\_\_\_.

- A. PABA
- B. NANA
- C. VMA
- D. GABA

ANSWER: B

139. Which one of the following is NOT a compound lipid?

- A. Plasmalogen.
- B. Ganglioside.
- C. Phosphatidyl inositol.
- D. Cetyl palmitate.

ANSWER: D

140. Phospholipids contain phosphoric acid bound in ester linkage to \_\_\_\_\_.

- A. choline.
- B. ethanolamine.
- C. serine.
- D. one of the above.

ANSWER: D

141. Mitochondrial lipogenesis requires \_\_\_\_\_.

- A. bicarbonate.
- B. biotin.
- C. acetyl CoA carboxylase.
- D. NADPH.

ANSWER: D

142. A fatty acid which is NOT synthesized in man is \_\_\_\_\_.

- A. oleic. .
- B. palmitic.
- C. linoleic.
- D. stearic.

ANSWER: C

143. Phospholipase A2 is an enzyme which removes a fatty acid residue from lecithin to form \_\_\_\_\_.

- A. lecithin fragments.
- B. phosphatidic acid
- C. glyceryl phosphate.
- D. lysolecithin.

ANSWER: A

144. Acyl carrier protein is involved in the synthesis of \_\_\_\_\_.

- A. protein.
- B. glycogen.
- C. fatty acid outside the mitochondria.
- D. fatty acid inside the mitochondria.

ANSWER: A

145. As a result of each beta oxidation a long chain fatty acid is cleaved to give an acid with \_\_\_\_\_.

- A. 3 carbon less and propionyl CoA.
- B. 2 carbon less and acetyl CoA.
- C. 4 carbon less and butyryl CoA.
- D. 1 carbon less and formate

ANSWER: B

146. Lock and key theory of enzymes was proposed by

- A. Fischer

- B. Koshland
  - C. Kuhne
  - D. Arrhenius
- ANSWER: A

147. Enzymes involved in feed back inhibition are called

- A. Allosteaic enzymes
- B. Holo enzymes
- C. Apo enzymes
- D. Co enzymes

ANSWER: A

148. Fastest enzyme is

- A. Pepsin
- B. Carbonic anhydrase
- C. DNA gyrase
- D. DNA polymerase

ANSWER: B

149. Which of the following compound has a double-helical structure?

- A. RNA.
- B. DNA.
- C. FAD.
- D. NAD

ANSWER: A

150. From DNA the genetic message is transcribed into this compound \_\_\_\_\_.

- A. mRNA.
- B. rRNA.
- C. protein.
- D. tRNA.

ANSWER: A

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