



CHEMISTRY

BOOKS - MBD CHEMISTRY (ODIA ENGLISH)

BIOMOLECULES

QUESTION BANK

1. Name two fibrous proteins.

2. Deficiency of vitamin B_2 causes which

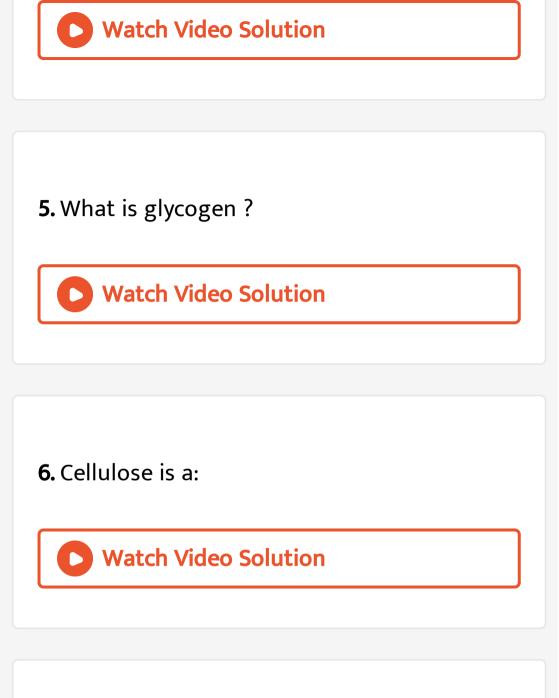
disease.



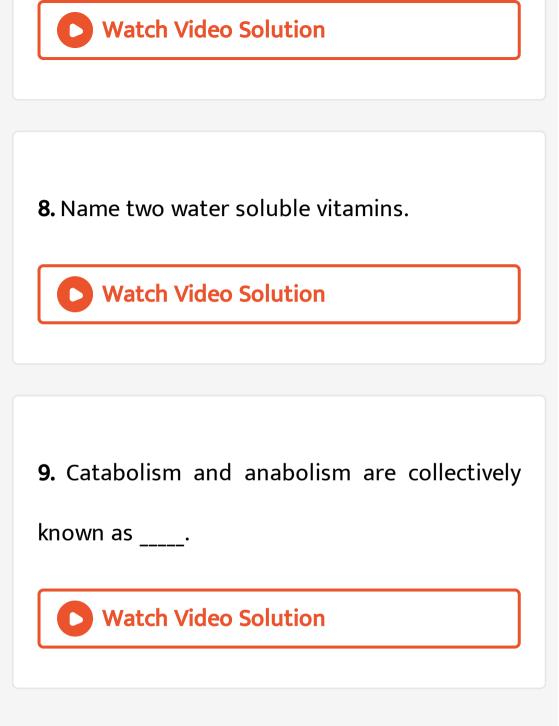
3. Write two functions of protein.



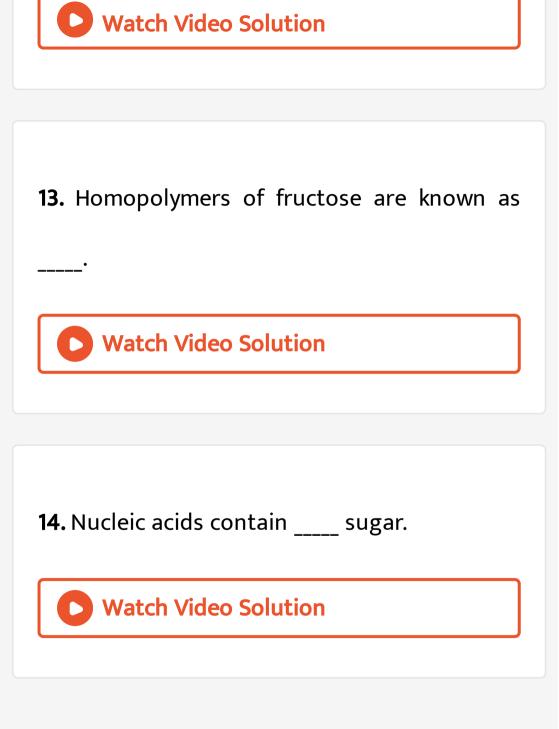
4. What are the sources of vitamin K?

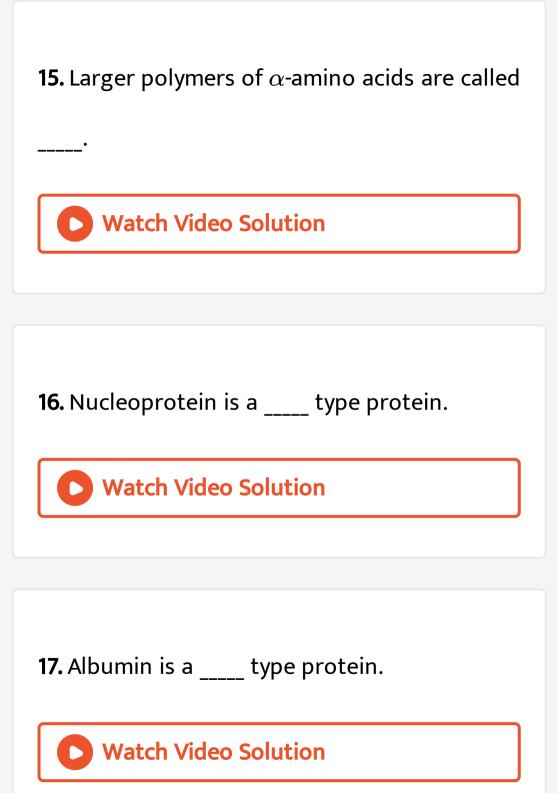


7. What is Zwitterion?



10. Catabolism and anabolism are collectively
known as
Watch Video Solution
11. acts as the centre of all activities of
the cell.
Watch Video Solution
12. Insulin is a homopolymer of





18. Keratin is a _____ type protein.

Watch Video Solution

19. Starch undergoes hydrolysis in presence of

mineral acids to give fructose.True/false

20. Glucose and fructose are chain isomers.TRUE/FALSE

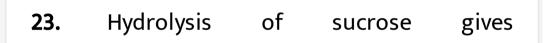
Watch Video Solution

21. Sucrose is used in silvering of mirrors.

(True/False)



22. Care sugar gives red color with Fehling.s solution.(True/False)
Watch Video Solution



glucose.TRUE/FALSE



24. Glucose is a ketohexose.TRUE/FALSE



25. Molisch's reagent may be used to distinguish between cane sugar and glucose solution.(True/False)

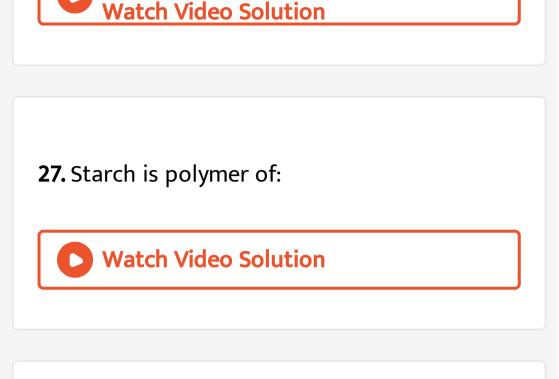
Watch Video Solution

26. The change in optical rotation with time of

freshly prepared solutions of sugar is known

as :





28. The function group which is found in amino acids is -COOH.TRUE/FALSE

29. Lack of vitamin B₁ causes scurvy.
(True/False)
Watch Video Solution

30. Describe the double helical structure of DNA.



31. The enzyme which hydrolyses triglycerides to fatty acids and glycerol is called zymase. TRUE/FALSE

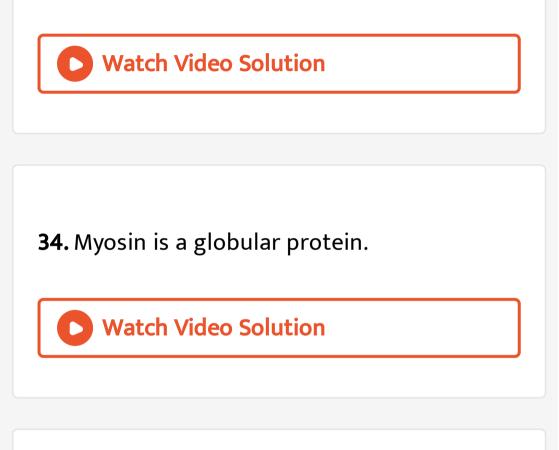


32. Helical structure of protein is stabilised by :

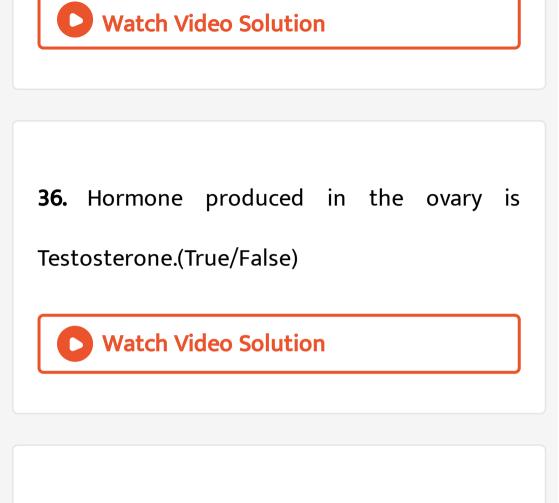


33. Amino acids which has phenolic -OH group

assist backbone is Leucine.TRUE/FALSE

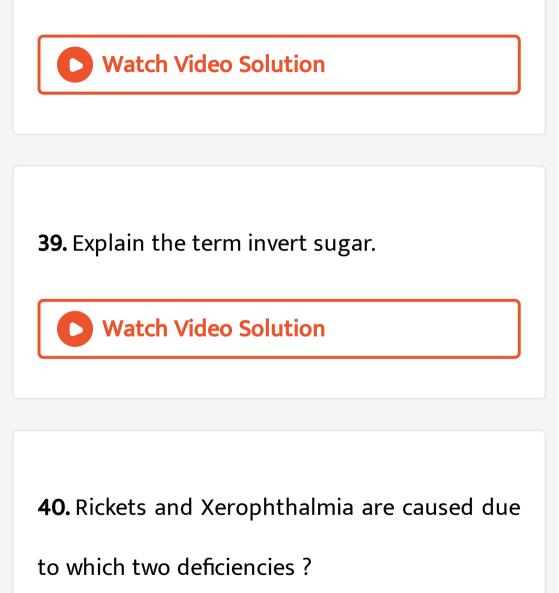


35. Thymine is present in RNA but not in DNA.SAY TRUE/FALSE



37. What is polypeptide ?

38. Give an example of denatured protein.



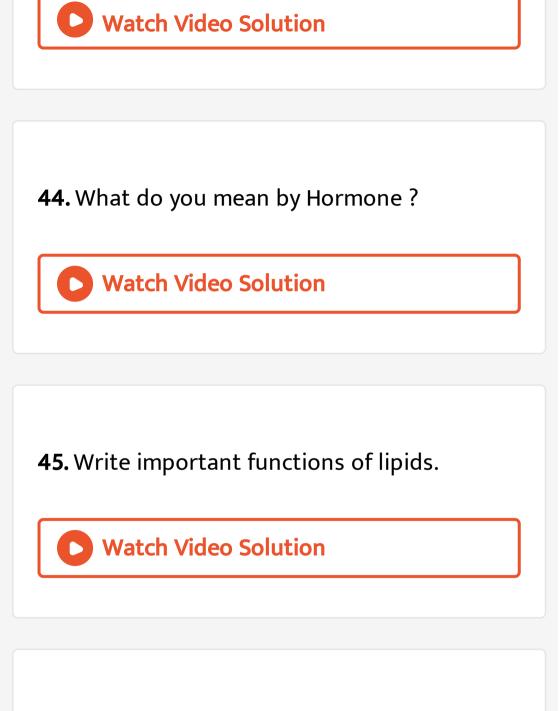
41. What is biofuel ?

Watch Video Solution

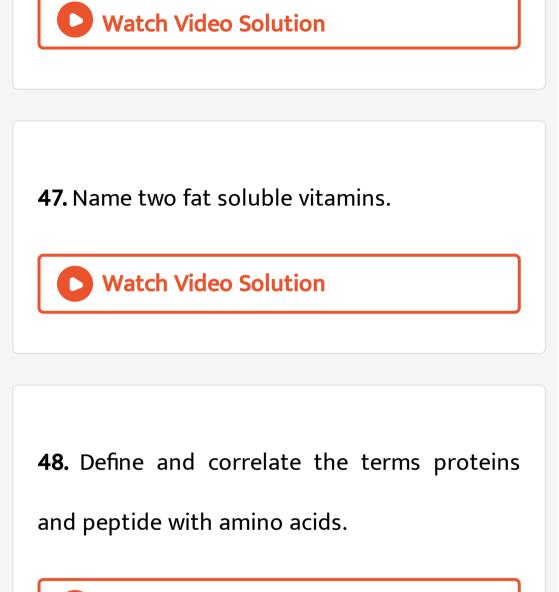
42. Write the difference between reducing sugar and non-reducing sugar.



43. Give two functions of mitochondria.



46. Give a brief idea about insulin.





49. How are sugar classified based on reducing

nature of carbohydrates ?

Watch Video Solution

50. How proteins are classified depending on

their three dimensional shape ?

51. How proteins are classified on the basis of

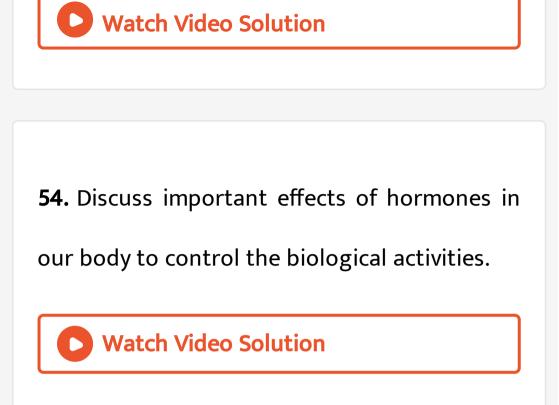
structure?

Watch Video Solution

52. Write important biological functions of Protein.

Vatch Video Solution

53. Write important functions of lipids.



55. What are carbohydrates ? How are they

classified ? Give examples of each type.



56. Define and correlate the terms proteins

and peptide with amino acids.



57. How are sugar classified based on reducing

nature of carbohydrates ?

58. How proteins are classified depending on

their three dimensional shape ?



59. Write important biological functions of Protein.



60. What are lipids ?

Γ



61. What are enzymes ? Illustrate their functions.

Watch Video Solution

62. Discuss important effects of hormones in

our body to control the biological activities.



63. Discuss the classification and functions of

vitamins.



64. What are nucleic acids? Write the

functions of nucleic acids ?

65. Which of the following is a monosaccharide ?

A. Glucose

B. Fructose

C. Arabinose

D. Galactose

Answer: C

66. Starch on hydrolysis by a dilute inorganic

mineral acid gives :

A. Sucrose

B. Glucose

C. Fructose

D. Maltose

Answer: D

67. Glucose will show mutarotation when solvent is :

A. Acidic

B. Basic

C. Neutral

D. Amphoteric

Answer: D

68. Which is used for making rayon (artificial silk) :

A. Starch

B. Cellulose

C. Terephthalic acid

D. Adipic acid

Answer: B

69. The disaccharide having two glucose units

is :

A. Lactose

B. Maltose

C. Sucrose

D. Ribose

Answer: B

70. Molisch's test is made for the detection of :

A. Alkyl halide

B. Carbohydrate

C. Alkaloid

D. Fat

Answer: B



71. After digestion, starch is converted into:

A. Glucose

B. Fructose

C. Lactose

D. Sucrose

Answer: A

Watch Video Solution

72. Osazone formation involves only 2 carbon

atoms of glucose because of :

A. Chelation

- **B.** Oxidation
- C. Reduction
- D. Hydrolysis

Answer: B



73. The number of asymmetric carbon atoms

in fructose are :

A. 2

B. 3

C. 4

D. 5

Answer: B

Watch Video Solution

74. Describe the preparation of ether by williamson synthesis.

- A. Glucose and lactose
- B. Glucose and fructose
- C. Glucose and arabinose
- D. Glucose and maltose

Answer: B

Watch Video Solution

75. Milk changes after digestion into :

A. Cellulose

B. Fructose

C. Glucose

D. Lactose

Answer: C

Watch Video Solution

76. Glucose and fructose :

A. Are isomeric compounds

B. Are polyhydroxy compounds

C. Shows epimerization

D. All

Answer: D



77. The number of asymmetric carbon atoms in

a molecule of glucose is:

A. 1

B. 2

C. 4

D. 6

Answer: C



78. The total number of C atoms in β -D fructofuranose are :

A. 6

B. 5

C. 4

D. 7

Answer: A



79. Glucose reacts with acetyl chloride to form

pentaacetyl glucose, it indicates presence of :

A. Five primary alcoholic groups

B. Five secondary alcoholic groups

C. Aldehyde as well as alcoholic group

D. Five -OH groups

Answer: D

Watch Video Solution

80. Glucose when heated with CH_3OH in presence of dry HCl gas α - and β - methyl glycosides are formed . This is because it contains :

A. An aldehydic group

B. $-CH_2OH$ group

C. A ring structure

D. Five hydroxyl groups

Answer: C

Watch Video Solution

81. Ribose sugar is a component of :

A. DNA

B. RNA

C. Glucose

D. Wax

Answer: B

Watch Video Solution

82. Glucose with excess of phenylhydrazine

from :

A. Fructosazone

B. Glucose phenyl hydrazone

C. Glucosazone

D. Phenyl hydrazone of glucosazone

Answer: C

Watch Video Solution

83. Which molecule possess the general formula of carbohydrates, but is not a carbohydrate :

- A. Glyceraldehydes
- B. Arabinose
- C. Acetic acid
- D. All

Answer: C



84. An aldose is converted into its next higher

homologue by :

- A. Ruff.s method
- B. Amadori rearrangement
- C. Kiliani synthesis
- D. None

Answer: C



85. Fructose is prepared commercially by a

polysaccharide which occurs in dahlia tubers

and Jerusalem artichokes :

A. Inulin

B. Cellulose

C. Lactose

D. None

Answer: A



86. When glucose reacts with bromine water,

the major product is :

- A. Gluconic acid
- B. Saccharin acid
- C. Sorbitol
- D. Galactose

Answer: A



87. Blood sugar is the same as,

A. Fructose

B. Galactose

C. Glucose

D. Glycogen

Answer: C

Watch Video Solution

88. An essential constituent of plant is :

A. Cellulose

B. Glucose

C. Sugar

D. Raffinose

Answer: A



89. Which enzyme hydrolyses triglyceride to

fatty acids and glycerol

A. Amylase

B. Maltose

C. Lipase

D. Pepsin

Answer: C



90. Cellulose is a:

A. Monosaccharide

B. Disaccharide

C. Polysaccharide

D. None

Answer: C

Watch Video Solution

91. Which is not a reducing sugar :

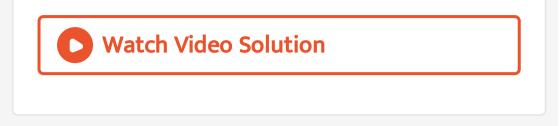
A. Fructose

B. Glucose

C. Lactose

D. Sucrose

Answer: D



92. Saccharin, an artificial sweetener, is manufactured from

A. Hexose

B. Reducing sugar

C. Glucoside

D. None





93. Common table sugar is more formally described as

A. Glucose

B. Lactose

C. Maltose

D. Sucrose

Answer: D



94. Sucrose is made up of :

- A. Glucopyranose and fructopyranose
- B. Glucofuranose and fructofuranose
- C. Glucopyranose and fructofuranose
- D. Glucopyranose and fructopyranose

Answer: B



95. Glycogen is :

A. A polysaccharide found in both animals

and plants

- B. Polysaccharide found in plants
- C. A polysaccharide found in animals
- D. A polysaccharide found in honey







96. Which is insoluble in water :

A. Glucose

B. Cellulose

C. Fructose

D. Sucrose

Answer: B

97. Which does not contain carbohydrate :

A. Cellulose

B. Wax

C. Starch

D. Wheat flour

Answer: B

98. Human digestive system does not hydrolyse :

A. Starch

B. Maltose

C. Glycogen

D. Cellulose

Answer: D

99. Solution of SO_2 in water is known as:

A. specific rotation

B. Inversion

C. Rotatory motion

D. Mutarotation

Answer: B



100. Which differs from the rest :

A. Glucose

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

Answer: A



101. Lactose has the same molecular formula

as :

A. Glucose

- B. Maltose
- C. Laevulose
- D. Galactose

Answer: B

Watch Video Solution

102.

Dihydroxyacetone

 $(CH_2OH.\ CO.\ CH_2OH)$ has the general

formula of carbohydrate but not included in

this class due to :

A. It does not contain polyhydroxy gp.

B. It does not contain aldehyde gp.

C. It is not optically active

D. All

Answer: C

103. The synthesis of carbohydrates in plants

is mainly due to :

A. Double decomposition

B. Photosynthesis

C. Hydrolysis of ingredients taken from soil

D. Nitrifying bacteria

Answer: B

104. Glucose may be converted into fructose

by:

A. Osazone formation

B. Lactone formation

C. Kiliani synthesis

D. None

Answer: A

105. The sugar present in fruits is :

A. Fructose

B. Glucose

C. Sucrose

D. Galactose

Answer: A

106. The acid used in soft drinks is:

A. Glucose

B. Fructose

C. cellulose

D. Aspartame

Answer: B

107. Pyranose structure of glucose is

A. Hexagonal

B. Pentagonal

C. Linear

D. Tetrahedral

Answer: D

108. The main sugar present in honey is :

A. Sucrose

B. Glucose

C. Fructose

D. Maltose

Answer: A



109. The polymer formed with more than two

monosaccharide unit is known as :

A. Disaccharide

B. Polysaccharide

C. Both (a) and (b)

D. None

Answer: B

110. Which of the following is laevorotatory :

A. Glucose

B. Fructose

C. Sucrose

D. None

Answer: B

111. The reaction of glucose with redP + HI is called :

A. Sandmeyer's reaction

B. Reformatsky reaction

C. Gattermann reaction

D. Reduction

Answer: D

112. The reagent used in Ruff degradation is :

A. Baeyer's reagent

B. Tollen's reagent

C. Fenton reagent

D. Benedict's reagent

Answer: C

113. A solution of d-glucose in water rotates

the plane polarised light :

A. To the right

B. to the left

C. To either side

D. None

Answer: A

114. Raffinose is :

A. Monosaccharide

B. Disaccharide

C. Trisaccharide

D. None

Answer: C



115. The metal present in insulin is:

A. 51

B. 15

C. 25

D. 475

Answer: A



116. Which are not the essential constituents

of balanced diet:

A. Carbohydrates

B. Fats

C. Proteins

D. Hormones

Answer: D

Watch Video Solution

117. The hormone responsible for bolting is

A. Is secreted by pancreas

- B. Is secreted by thyroid
- C. Decreases blood sugar
- D. Does not stimulate metabolism

Answer: B

Watch Video Solution

118. Which one of the following proteins

transports oxygen in the blood stream:

A. Myoglobin

B. Insulin

C. Albumin

D. Haemoglobin

Answer: D

Watch Video Solution

119. What do you mean by an asymmetric carbon?

A. Histidine

- B. Glycine
- C. α -alanin
- D. Threonin

Answer: B



120. Which one is a test for proteins:

A. Brillstein test

B. Biuret test

C. Benedict's test

D. Molisch's test

Answer: B

Watch Video Solution

121. The destruction of the biological nature and activity of proteins by heat or chemical agent is called:

- A. Dehydration
- **B.** Denaturation
- C. Denitrogenation
- D. Deamination

Answer: B



122. Which of the following molecules contain

asymmetric carbon atom ?

- A. Carbohydrates
- **B.** Proteins
- C. Oils and fats
- D. Waxes

Answer: B



123. Which of the following is not a protein:

A. Wool

B. Nail

C. Enzyme

D. Nucleoside

Answer: D

Watch Video Solution

124. Kwashiorkar is caused by the deficiency of:

A. Vitamins

B. Hormones

C. Amino acids

D. Essential amino acids

Answer: C

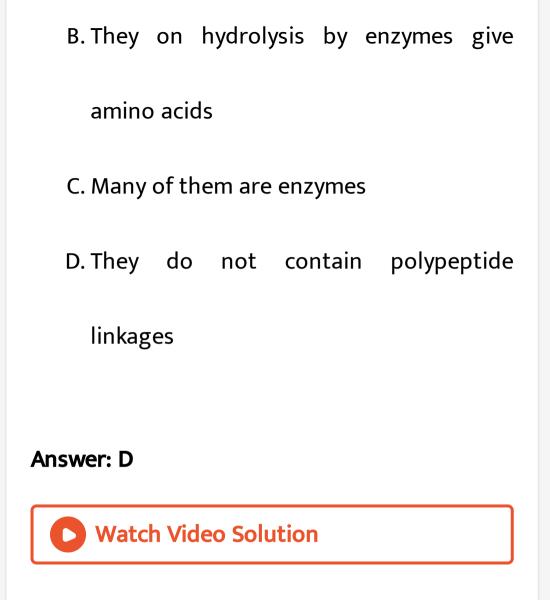


125. Point out of the wrong statement about

proteins:

A. They are nitrogenous organic

compounds of high molecular mass



126. Secondary structure of proteins refers to:

A. Mainly denatured proteins and structure

of prosthetic group

B. Three dimensional structure specially

the bond between amino acid residues

that are distant from each other in

polypeptide chain

C. Linear sequence of amino acid residue in

the polypeptide chain

D. Regular folding patterns of continuous

portion of the polypeptide chain





127. Ascorbic acid is:

A. Vitamins C

B. Enzyme

C. Proteins

D. Lipid

Answer: A



128. The organic compounds of high physiological importance which are essential in small amounts for the well being of all human beings are:

A. Proteins

B. Vitamins

C. Mineral salts

D. Enzymes





129. Vitamin A is also known as:

A. Xerophythol

B. Thiamine

C. Riboflavin

D. Pyridoxine

Answer: A



130. Deoxyribonucleic acid (DNA) is a polymer

of units called:

A. Sugars

B. Ribose

C. Amino acids

D. Nucleosides

Answer: D





131. Vitamin C deficiency may cause:

A. Beriberi

B. Rickets

C. Night blindness

D. Teeth & scurvy disease

Answer: D

132. The antisterility or anti reproductive vitamin is:

A. B

B.C

C. D

D. E

Answer: D

133. Aqueous solution of which carbohydrate give a dark blue colour with a few drops of iodine solution

- A. B_1
- $\mathsf{B}.\,B_2$
- $\mathsf{C}.\,B_6$
- D. B_{12}

Answer: D

134. Which is fat soluble vitamin:

A. Vitamin A

B. Pyridoxine

C. Riboflavin

D. Thiamine

Answer: A



135. Citrus fruits are an important source of

vitamin:

A. B

B.C

C. D

D. K

Answer: B

136. Which one of the following compounds is

not a vitamin:

A. Ascorbic acid

B. Thiamine

C. Testosterone

D. Riboflavin

Answer: C

137. Which vitamin contains N:

A. Vitamin A

B. Vitamin C

C. Vitamin B

D. Vitamin D

Answer: C

138. The chemical messenger produced in the

endocrine (duct-less) glands are grouped as:

A. Polypeptides

B. Hormones

C. Bile salts

D. Purines

Answer: B

139. Vitamin D is also known as:

A. Growth vitamin

B. Ascorbic acid

C. Reproductive vitamin

D. Sunshine vitamin

Answer: D

140. Which of the following vitamins contains

isoprene unit:

A. A

B.C

 $\mathsf{C}.\,B_2$

D. D

Answer: A

141. Nucleotides and nucleosides mainly differ

from each other in :

A. Presence of phosphate units

B. Presence of base units

C. Presence of nucleic acids

D. None

Answer: A

142. Vitamin which is believed to cure common

cold is :

A. A

B.C

C. K

D. E

Answer: B

143. Which of the following vitamins is present

in cod-liver oil:

A. A

 $\mathsf{B.}\,B_{12}$

 $\mathsf{C}.\,B_1$

 $\mathsf{D.}\, C$

Answer: A



144. The vitamin that is most readily manufactured in our bodies is :

A. Vitamin A

B. Vitamin B

C. Vitamin C

D. Vitamin D

Answer: D

145. An example of a water soluble vitamin is :

A. Vitamin

B. Vitamin C

C. Vitamin D

D. Vitamin E

Answer: B



146. Deficiency of vitamin E causes:

A. Sterility

B. Rickets

C. Beri-Beri

D. Scurvy

Answer: A



147. The vitamin which is water soluble and antioxidant is :

A. Vitamin E

B. Vitamin D

C. Vitamin C

D. Vitamin B_1

Answer: C

Watch Video Solution

148. A vitamin which plays a vital role in the coagulating property of blood is :

A. Vitamin A

B. Vitamin D

C. Vitamin E

D. Vitamin K

Answer: D

Watch Video Solution

149. Scurvy is caused due to deficiency of :

A. Vitamin B_1

B. Vitamin B_2

C. Ascorbic acid

D. Glutamic acid

Answer: C

Watch Video Solution

150. Beri-Beri is caused due to :

A. Vitamin A

B. Vitamin B_1

C. Vitamin C

D. Vitamin D

Answer: B



151. Which one of the following vitamins

deficiency causes rickets:

A. Vitamin A

B. Vitamin B

C. Vitamin C

D. Vitamin D

Answer: D



152. Which one of the following vitamins

contains a metal atom:

A. Riboflavin

B. Vitamin B_{12}

C. Vitamin A

D. Vitamin B_6

Answer: B



153. Vitamin C is a :

A. Alcohol

B. Amide

C. Amine

D. Lactone

Answer: A

Watch Video Solution

154. Vitamin B_1 is chemically known as :

A. Ascorbic acid

B. Riboflavin

C. Pyridoxine

D. Thiamine

Answer: D



155. Deficiency of which vitamin can cause night blindness an eye disease:

A. Vitamin B_6

B. Vitamin C

C. Vitamin B_{12}

D. Vitamin A





156. Which enzyme hydrolyses triglyceride to fatty acids and glycerol

A. Amylase

B. Maltase

C. Lipase

D. Pepsin





157. Which is not a poison for enzymes:

- A. CN^{-}
- $\mathsf{B.}\,Fe^{3\,+}$
- $\mathsf{C.}\, Pb^{2\,+}$

D.
$$As_4^{3\,-}$$

Answer: B



158. Which vitamin is present is Golden Rice ?

A. fish Liver oil

B. Milk

C. butter

D. All

Answer: D

159. Which of the following contains vitamin D:

A. Calciferol

B. Keratin

C. Tocopherol

D. None

Answer: A

160. is the precursor of vitamin-A.

A. Beans

B. Wheat

C. Carrots

D. Oranges

Answer: C



161. Which of the following is a vitamin:

A. Riboflavin

B. Thyroxine

C. Adrenaline

D. Guanine

Answer: A

162. Which of the following hormones helps in the conversion of glucose into glycogen in the body:

A. Insulin

B. Cortisone

C. Thyroxin

D. Oxytocin

Answer: A

163. A substance which completely destroys or

reduces the activity of the catalyst is called:

A. Catalysts

B. Inhibitors

C. Co-enzymes

D. Epimers

Answer: C

164. The substance constituting more than

80~% of cell contents is :

A. Protein

B. Mineral

C. Fat

D. Water

Answer: D

165. The hormone thyroxine:

A. Quick digestion

B. Slow heartbeat

C. Either of these

D. None of these

Answer: D

166. The conversion of glucose into glycogen

in liver is called:

A. Glycogenolysis

B. Glycogenesis

C. Glycolysis

D. Gluconeogenesis

Answer: B

167. Prolonged deficiency of nicotinic acid

(niacin) in human diet leads to:

A. Beri-Beri

B. Pellagra

C. Scurvy

D. Anaemia

Answer: B

168. The Ph of stomach is:

A. 7

B. 6

C. 10

D. 2

Answer: D



169. The energy stored in the cells of a living

body is in the form of:

A. Fats

B. Glucose

C. ATP

D. Proteins

Answer: C

170. Element found in plant systems which forms an important constituent of photosynthesis is:

A. Iron

B. Copper

C. Vitamins

D. Sodium

Answer: C

171. Which of the following disease is a STD?

A. Epilepsy

B. AIDS

C. Color blindness

D. Leucoderma

Answer: C

172. The principal buffer present in the blood

is:

A. CH_3COONH_4

$\mathsf{B.}\,CH_3COOH\,/\,CH_3COONa$

 $\mathsf{C}.\,H_2CO_3\,/\,HCO_3^{\,-}$

D. $NaH_2PO_4Na_2HP_4$

Answer: C

173. The cells having membrane bound nucleus

are called:

A. Eukaryotic

B. Prokaryotic

C. Plant tissue cell

D. Animal tissue cell

Answer: A

174. Artificial gene was first synthesised by:

A. Khorana

- B. Watson and Crick
- C. Chargaff
- D. Wilkins

Answer: A



175. Which of the following is a female sex hormone:

A. Adrenaline

B. Estrone

C. Cortisone

D. Testosterone

Answer: B

176. Hydrolysis of adenosine triphosphate,

involves rupture of:

A. Base-sugar bond

B. Sugar-phosphate bond

C. P-O-P bond

D. Consumption of the whole molecule

Answer: C

177. Oxygen balance in the atmosphere maintained through the process of:

A. Photosynthesis

B. Protein synthesis

C. Amino acid synthesis

D. Fat synthesis

Answer: A

178. Universal recipient in blood transfusion

belongs to the group:

A. Adrenaline

B. B

C. AB

D. 0

Answer: C

179. What are the end products of respiration:

A. Glucose $+CO_2$

B. Glucose $+O_2$

 $\mathsf{C}.\,H_2O+CO_2$

 $\mathsf{D.}\, CO_2 + O_2$

Answer: C

180. Blood transports:

A. Oxygen

B. Carbon dioxide

C. Oxygen and carbon dioxide

D. None of the above

Answer: C

181. Which of the following is a genetic trait in

man:

A. Albinism

B. Leucoderma

C. Tuberculosis

D. Diphtheria

Answer: A

182. In which of the following steps largest

number of ATP are produced :

A. Glycolysis

B. Kreb's cycle

C. Hydrolysis

D. Terminal respiratory chain

Answer: B

183. The 'Y' shaped protein molecules involved

in the immune system are called:

A. Antigen

B. Immunoglobulin

C. Pathogens

D. None of the above

Answer: B

184. Haemophilia is a disease caused by deficiency of:

A. RBCs

B. WBCs

C. Thromboplastin

D. Water in plasma

Answer: C

185. Carbohydrates have the general formula $C_X(H_2O)_Y$. Which of the following is not a carbohydrate:

A. $C_6H_{16}O_6$

B. $C_6 H_{10} O_5)_n$

C. $C_{12}H_{22}O_{11}$

D. $C_2H_4O_2$

Answer: D



186. The general formula of carbohydrates is:

A. $C_n H_{2n+1} O$

 $\mathsf{B.}\, C_n H_2 n O$

C. $C_n(H_2O)_n$ or $C_x(H_2O)_y$

D. $C_n(H_2O)_2n$

Answer: C

187. Carbohydrates are commonly found as starch in plant storage organ . Which of the following five properties of starch (i-v) make it useful as a storage material ? (i) easily translocated (ii) chemically non-reactive (iii)easily digested by animals (iv) osmotically inactive (v) synthesized during photosynthesis The useful properties-are:

A. Hydrates of carbon

B. Polyhydroxy aldehydes or, ketones

C. Polyhydroxy acids

D. None

Answer: B

Watch Video Solution

188. Many of the carbohydrates are sweet in taste because of:

A. They give sugars on hydrolysis

B. Covalent bonding

C. Electrovalent bonding

D. Coordinate bonding

Answer: A

Watch Video Solution

189. Which carbohydrate is as important as steel and is employed in manufacture of many articles in daily use as well as most abundant in nature:

A. Cellulose

B. Glucose

C. Starch

D. Sucrose

Answer: A

Watch Video Solution

190. Carbohydrate contains

A. -OH

B.-CHO

$$\mathsf{C.} > C = O$$

D. All

Answer: D



191. Aqueous solution of which carbohydrate

give a dark blue colour with a few drops of iodine solution

A. Sucrose

B. Starch

C. Glucose

D. Fructose

Answer: B

Watch Video Solution

192. Aqueous solution of carbohydrate with 2 drops of alcoholic solution of α -napthol and H_2SO_4 gives a ring at the junction . The colour of the ring is

A. Yellow

B. Green

C. Violet

D. Red

Answer: C

Watch Video Solution

193. Which reagent is used for detection of sugar in urine

- A. Baeyer's agent
- B. Tollen's agent
- C. Fehling's agent
- D. Bendict's agent

Answer: C



194. Starch can be used as an indicator for the

detection of the traces of

A. Glucose in aqueous solution

B. Proteins in blood

C. lodine in aqueous solution

D. Urea in blood

Answer: C

Watch Video Solution

195. Glucose cannot be classified as:

A. A hexone

B. A carbohydrate

C. An oligosaccharide

D. An aldose

Answer: C

Watch Video Solution

196. On heating with conc. H_2SO_4 sucrose

gives:

A. CO and CO_2

B. CO and SO_2

$\mathsf{C.}\, CO,\, CO_2 \mathsf{and}\, SO_2$

D. None of the above

Answer: D

Watch Video Solution

197. The letter D in carbohydrates represents

A. Its direct synthesis

B. Its dextrorotation

C. Its mutarotation

D. It configuration

Answer: D



198. Glucose reacts with methyl alcohol to give

A. α -methyl glucopyrnoside

B. β -methyl glucopyrnoside

C. Both (a) and (b)

D. None

Answer: C

Watch Video Solution

199. The epimer of glucose is

A. Galactose

B. Fructose

C. Mannose

D. Arabinose





200. α -glucose and β -glucose are

A. Isomers

B. Anomers

C. Epimers

D. Tautomers

Answer: B



201. Glucose is

- A. Monosaccharide
- B. Disaccharide
- C. Trisaccharide
- D. Polysaccharide

Answer: A

202. Fructose contains

A. 50H groups

B. 3 secondary alcoholic groups

C.2 primary alcoholic group and one

ketonic group

D. All

Answer: D

203. Which of the following is a disaccharide:

A. Sucrose

B. Glucose

C. Fructose

D. Starch

Answer: A



204. Cane sugar on hydrolysis yields:

- A. Glucose and maltose
- B. Glucose and lactose
- C. Glucose and fructose
- D. Only glucose

Answer: C

205. Glucose gives the silver mirror test with ammoniacal solution of silver nitrate because it contains :

A. Aldehyde group

B. Ester group

C. Ketone group

D. Amide group

Answer: A

206. Glucose and fructose are :

A. Chain isomers

B. Position isomers

C. Functional isomers

D. Optical isomers

Answer: C

207. Glucose and fructose differ in :

A. Taste

B. Action of heat

C. Action of Tollen's reagent

D. Direction of optical rotation

Answer: D

208. Direct conversation of starch into glucose

may be carried out by:

A. Fermentation with diastase

B. Fermentation with zymase

C. Heating it with dil. H_2SO_4

D. Fermentation with maltose

Answer: C

209. Which is sweet among known sugars,

A. Sucrose

B. Fructose

C. Glucose

D. Lactose

Answer: B

210. The ultimate product of the hydrolysis of

starch is :

A. Glucose

B. Fructose

C. Sucrose

D. None

Answer: A

211. Glucose and fructose are readily

distinguished by using :

A. Molisch test

B. Saliwanoff test

C. Tollen.s reagent

D. None of these

Answer: B

212. Identify the product Z in the following

:

series of reactions $C_6H_{12}O_6 \xrightarrow{HCN} X \xrightarrow{H_2O} Y \xrightarrow{HI} Z$

A. Hexanoic acid

B. α -methyl caproic acid

C. Heptanoic acid

D. None of these

Answer: C

213. Invert sugar is :

A. Chemically inactive form of sugar

B. Equimolar mixture of glucose and

fructose

C. Mixture of glucose and sucrose

D. A variety of cane sugar

Answer: B

214. Milk sugar is (a disaccharide):

A. Sucrose

B. Lactose

C. Fructose

D. Glucose

Answer: B



Watch Video Solution

215. Which of the following is a ketohexose:

A. Glucose

- **B.** Fructose
- C. Sucrose
- D. Starch

Answer: C



216. The reagent used to distinguish between

starch and sugar solution is:

A. Ammoniacal silver nitrate

- B. Fehling's solution
- C. Benedict's solution
- D. Iodine solution

Answer: A

Watch Video Solution

217. Starch is polymer of:

A. Fructose

B. Glucose

C. Lactose

D. None

Answer: B

Watch Video Solution

218. When sucrose is heated with Fehling's solution, the product formed is:

A. Saccharic acid

B. Oxalic acid

C. Formic acid

D. Invert sugar

Answer: D

Watch Video Solution

219. Which does not react with Fehling.s solution:

A. Acetaldehyde

B. Benzaldehyde

C. Glucose

D. Formic acid

Answer: B

Watch Video Solution

220. Starch is changed into disaccharides in presence of:

A. Diastage

B. Maltase

C. Lactase

D. Zymase

Answer: C

Watch Video Solution

221. Glucose is hydrolysed by zymase into:

A. Dicarboxylic acid

B. Alcohol

C. Amino acids

D. Aromatic acids

Answer: C



222. How are you able to test sugar in a given

sample of wine:

A. By Molisch's test

B. By Dunstan's test

C. By Biuret's test

D. By Legal's test

Answer: B

Watch Video Solution

223. which carbohydrate serves as reserve

glucose in body?

224. Acetyl derivative of which carbohydrate is

used in sizing industry:

A. Glucose

B. Fructose

C. Lactose

D. Starch

Answer: B

225. The carbohydrates are important

constituent of our diet, they function as:

A. Bio fuels of provide energy

B. Shock absorbing pad

C. Heat insulator

D. None

Answer: C

226. Glucose forms many derivatives. The derivative which will help to prove the furanose structure is:

A. Osazone

B. Benzoyl

C. Acetyl

D. Isopropylidene

Answer: C

227. A compound of non-sugar and glucose which yields glucose on hydrolysis found in plants, is called:

A. Alkoxide

B. Glucoside

C. Glycoside

D. None of these

Answer: B

228. An essential constitution of a diet is:

A. Starch

B. Glucose

C. Carbohydrate

D. Protein

Answer: B

229. Which carbohydrate is used in silvering of

mirrors:

A. Sucrose

B. Starch

C. Glucose

D. Fructose

Answer: B

230. Glucose gives many reactions of aldehyde

because:

A. It is hydrolysed to acetaldehyde

B. It is a polyhydroxy ketone

C. It is a cyclic aldehyde

D. It is a hemiacetal in equilibrium with

its aldehyde form in solution

Answer: B

231. Orlon is a polymer of

A. α -D glucopyranose

B. Fructose

C. β -fructose

D. β -D fructose

Answer: D

232. The ultimate products of oxidation of most of hydrogen and carbon in food-stuffs are:

- A. H_2O alone
- B. CO_2 alone
- C. H_2O and CO_2
- D. None of these

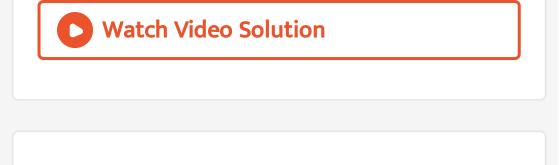
Answer: D



233. It is best to carry out reactions with sugars in neutral or acid medium not in alkaline medium. This is because in alkaline medium sugar undergoes one of the following changes.

- A. Decomposition
- B. Inversion
- C. Rearrangement
- D. Racemization

Answer: A



234. The calorific values of fats, carbohydrates and proteins vary in the order:

A. Fats > Carbohydrates > Proteins

B. Fats > Proteins > Carbohydrates

C. Carbohydrates > Proteins > Fats

D. Proteins > Carbohydrates > Fats

Answer: B





235. Proteins mainly contain:

A. C, H, O and N

B. Only C and H

C. C, H and O

D. N and H

Answer: B

236. A substance gives ninhydrin test. It is most likely a:

A. Lipid

B. Vitamin

C. Carbohydrate

D. Protein

Answer: A

237. Proteins are composed of:

A. Nucleotides

B. Nucleosides

C. Dipeptides

D. Amino acids

Answer: C

238. In human body enzymes hydrolyse protein into:

A. A ketogenic aids like $CH_3COCOOH$

B. A hydroxy acid like $CH_3CHOHCOOH$

C. Dicarboxylic acid like COOHCOOH

D. Amino acids like CH_2NH_2COOH

Answer: D

239. Which statement about protein is wrong:

A. Proteins occur in all living cells

B. Proteins invariably contain N, O, C and H

C. Proteins are synthesised by plant

kingdom only

D. Proteins are also synthesised in

laboratory

Answer: D

240. Proteins do not respond to:

A. Biuret test

B. Lucas test

C. Ninhydrin test

D. Xanthoproteic test

Answer: B

241. Amino acids usually exist in the form of Zwitterions which consist of:

A. The basic group $-NH_2$ and the acidic group -COOHB. The acid group $-NH_3^+$ and the basic group CO_2^- C. The acid group CO_2^+ and the acidic group NH_3^-

D. No acidic or basic group





242. A compound of formula NH_2CH_2COOH

may behave:

A. Only as an acid

B. Only as a base

C. Both acid and base

D. Neither acid nor base

Answer: B



243. The helical structure or a secondary structure of proteins is stabilized by:

A. Peptide bonds

B. Dipeptide bonds

C. H-bond

D. None





244. The sequence in the structure of nucleic acid is:

A. Base + phosphate group + pentose

B. Phosphate group + sugar + base

C. Pentose + base + phosphate group

D. All





245. Who pointed out peptide linkage in proteins:

A. Kekule

B. Hofmann

C. Fisher

D. Cannizzaro





246. Protein can be most easily removed by:

A. Alkanes

B. Alkenes

C. Alkynes

D. Benzene

Answer: C



247. Point out the correct statement about proteins:

A. They are nitrogenous organic

compounds

of high molecular weights

B. They on hydrolysis by enzyme

give amino acids

C. Many of them are enzymes

D. All

Answer: B

Watch Video Solution

248. One of the essential alpha amino acids is:

A. Lysine

B. Glycine

C. Serine

D. Proline





249. Which of the following contains the highest percentage of proteins:

A. Groundnut

- B. Cow's milk
- C. Egg
- D. Wheat





250. The proteins are hydrolysed with acids, alkalies or enzymes finally to:

A. Amino acids

B. Ethers

C. Esters

D. Cycloparaffins





251. The main structural feature of protein is:

- A. The ester linkage
- B. The ether linkage
- C. The peptide linkage
- D. All of the above

Answer: A



252. The enzyme pepsin hydrolyses:

A. Proteins to amino acids

B. Fats to fatty acids

C. Glucose to ethyl alcohol

D. Polysaccharides to monosaccharides

Answer: D

253. Protein is an important constituent of our

diet. It functions mainly as:

A. A source of energy

B. Construction material

C. Shock absorber

D. Reserve food

Answer: D

254. The end product of protein digestion is:

A. Amino acids

B. Glucose

C. Glycerol

D. Oxalic acid

Answer: C



255. The energy change produced by the combustion of foods is called the calorific value. The best calorific value is given by:

A. Proteins

B. Fats

C. Carbohydrates

D. Vitamins

Answer: C

256. Biuret test is used for the detection of:

A. Saturated oils

B. Sugars

C. Proteins

D. Fats

Answer: B



257. Proteins give:

A. A violet colour with alkaline

 $CuSO_4$ solution

B. Form a purple colour on boiling with

dilute ninhydrin solution

C. Yellow colour on boiling with HNO_3

D. All

Answer: C

258. Which of the following is proteins:

A. Terry cotton

B. Natural silk

C. Nylon

D. Reyon

Answer: A

259. Which is an amino acid:

A. Glycine

B. Valine

C. Lysine

D. All

Answer: A

260. Which of the following is a simple protein?

A. Albumin

B. Globulin

C. Glutenin

D. All

Answer: B

261. Which is a protein:

A. Gelatin

B. Casein

C. Plasma protein

D. All

Answer: A

262. Which of the following have coiled helical

structure:

A. Proteins

B. Lipids

C. Carbohydrates

D. Vitamins

Answer: C

263. Globular proteins are present in:

A. Blood

B. Eggs

C. Milk

D. Body fluids

Answer: B



264. Keratin, a structural protein is present in:

A. Hair

B. Skin

C. Wool

D. Horn

Answer: C

Watch Video Solution

265. The protein is responsible for transport of

oxygen in the bloodstream is

- A. Haemoglobin
- B. Insulin
- C. Myoglobin
- D. Albumin

Answer: A



266. Which of the following is not a classification of proteins

A. Enzymes

- **B.** Antibodies
- C. Antigens
- D. Hormones

Answer: B



267. Which protein is main constituent of milk

A. Keratin

B. Casein

C. Myosin

D. Insulin

Answer: B

Watch Video Solution

268. On heating with conc. HNO_3 proteins give yellow colour. This test is called

A. Oxidising test

B. Xanthoproteic test

C. Hoppe.s test

D. Acid base test

Answer: B

Watch Video Solution

269. Naturally occuring polymer of amino acids

is

A. Polythene

B. PVC

C. Proteins

 $\mathsf{D.}\,CH_3COOH$

Answer: C

Watch Video Solution

270. Proteins are polymer of amino acids . Which of the following is not a protein

A. Wool

B. Nails

C. Hair

D. DNA

Answer: D

Watch Video Solution

271. Molecular weight of a protein is

A. 10000

B. 1,000-10,000

C. 100-1,000

D. greater than 10,000

Answer: D



272. A Protein that controls the metabolism of

glucose is

A. Oxytocin

B. Insulin

C. Haemoglobin

D. Keratin

Answer: B



273. Insulin, a protein acts as

A. An antibody

B. A hormone

C. An enzyme

D. A transport agent

Answer: B

Watch Video Solution

274. Protein which acts as hormone is

A. Casein

B. Oxytocin

C. Trypsin

D. Keratin





275. Decarboxylation of glycine yields

A. CH_4

 $\mathsf{B.}\,CH_3COOH$

 $\mathsf{C.}\,CH_3NH_2$

D. Ethanamide

Answer: C



276. The purine base present in RNA is

A. Guanine

B. Thymine

C. Cytosine

D. Uracil

Answer: D

277. Which vitamin is closely involved in the formation of collegent-protein present in connective tissues and bones

A. Riboflavin

B. Ascorbic acid

C. Niacin

D. Cyanocobalamin

Answer: B

278. Simple proteins bonded with a nonprotein prosthetic group (acting as cofactor) are called

A. Simple proteins

B. Conjugated proteins

C. Proteonic proteins

D. None

Answer: B

279. Which of the following is a conjugated protein

- A. Glycoprotein
- B. Phosphoprotein
- C. Chromoprotein
- D. All are correct

Answer: D



280. Proteins give a white precipitate with Millon's reagent, which is

A. Mercurous and mercuric nitrate in HNO_3

B. Mercurous and mercuric chloride in *HCL*

C. Mercurous and mercuric chloride in

 HNO_3

D. None





281. Blood protein is

A. Albumin

- B. Haemoglobin
- C. Both (a) and (b)

D. None





282. Which is not a fibrous protein?

A. Wool

B. Insulin

C. Nails

D. Skin



283. Compounds containing both $-NH_2$ and

-COOH groups are called

A. Proteins

B. Dicarboxylic acids

C. Amino acids

D. α -hydroxy acids

Answer: C

284. The pH value of a solution in which a polar amino acid does not migrate under the influence if electric field is called

A. Isoelectronic points

B. Isoelectric point

C. Neutralisation point

D. None

Answer: A

285. Two reactions are said to be coupled if

A. Both δG_1 and δG_2 are negative

- B. δG_1 is positive but δG_2 is negative
- C. δG_1 and δG_2 are possitive
- D. None of the above

Answer: B



286. The no. of polypeptide chains present in a

molecule of haemoglobin is

A. One

B. Two

C. Three

D. Four

Answer: D

287. The Ph of blood is (approximately)

A. 7.4

B. 5.2

C. 11.3

D. 9.6

Answer: A



288. Hyperglycemia refers to

A. High blood sugar level

B. High salt conc. In blood

C. High blood pressure

D. Low sugar level in blood

Answer: A

Watch Video Solution

289. Digestion of fat in intestine is aided by :

A. Diffusion

B. Protection

C. Peptization

D. Emulsification

Answer: D

Watch Video Solution

290. Which of the following is the female sex

hormone

A. Estrone

B. Testostrene

C. Cortisone

D. Thyroxine

Answer: A

Watch Video Solution

291. The hydrolysis of starchy foods begins in

the mouth by enzymes present in saliva . The

enzymes are

A. Amylase

B. Protease

C. Ptyalin

D. Maltase

Answer: C

Watch Video Solution

292. Enzymes trypsin converts

A. Proteins into α -amino acids

B. Starches into sugar

C. Glucose into glycogen

D. α -amino acids into proteins

Answer: A

Watch Video Solution

293. The primary products of photosynthesis

in green plants . It contains the element

A. Fructose

B. Glucose

C. Maltose

D. Cellulose

Answer: B

Watch Video Solution

294. Chlorophyll is the green colouring matter

of plant . It contains the element

A. Sodium

B. Potassium

C. Magnesium

D. Manganese

Answer: C

Watch Video Solution

295. Which of the following is provitamin A

A. Carotene

B. Calciferol

C. Ascorbic acids

D. Ergosterol

Answer: A



296. The green pigment of plants essential for

the formation of carbohydrates by

photosynthesis is

A. Acrophyll

B. Lyphyll

C. Chlorophyll

D. None of the above

Answer: C

Watch Video Solution

297. Which of the following regulates the metabolism of sugars

A. Thyroid

B. Insulin

C. Hydrocortisone

D. None

Answer: B

Watch Video Solution

298. In the chemical sense digestion is basically

A. Hydrolysis

B. Anabolism

C. Hydrogenation

D. Dehydrogenation

Answer: A

Watch Video Solution

299. Deficiency of calcium leads to

A. Anaemia

B. Tetany

C. Scurvy

D. Rickets

Answer: D



300. The ultimate products of oxidation of most of the hydrogen and carbon in food - stuffs are

A. Water only

B. Carbondioxide only

C. Water and carbon dioxide

D. None of these

Answer: C

Watch Video Solution

301. Zinc is a constituent of

A. Enzymes

B. Insulin

C. Tissues

D. All are correct

Answer: D



302. Which is involved in blood clotting

- A. Fibrinogen
- B. Pepsinogen

C. Trypsinogen

D. None

Answer: A

Watch Video Solution

303. Deficiency of which metal ion causes anaemia

A. Zn

B. Fe

C. Mg

D. Na

Answer: B

Watch Video Solution

304. The metal ions present in body fluids are

A. Sodium, Potassium, Calcium

- B. Sodium ,Calcium
- C. Potassium , Zinc

D. Magnesium, Iron





305. The metal ion present in the human body in greater % is

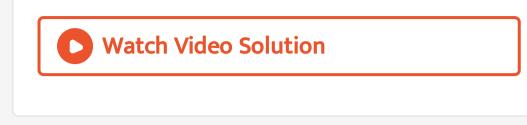
A. Ca

B. Na

C. K

D. Fe



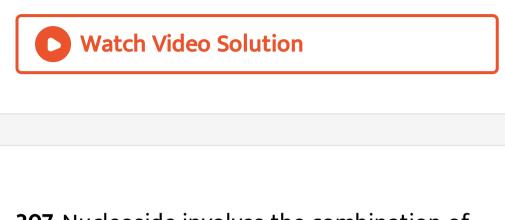


306. White blood cells act as

- A. As source of energy
- B. For blood clotting
- C. As defence against infection
- D. As a medium for oxygen transport from

lungs to tissues





307. Nucleoside involves the combination of

- A. Sugar + base + H_3PO_4
- B. Sugar + base
- C. Sugar + acid
- D. None

Answer: B



- **308.** Water is important to living being because
 - A. It is a compound of hydrogen and oxygen
 - B. It can be obtained in pure form
 - C. It is a good solvent and its boiling point
 - is moderately high
 - D. It is colourless liquid





309. A gene is a segment of a molecule of

A. DNA

B. m-RNA

C. t-RNA

D. Protein

Answer: A



310. Protein synthesis occurs:

A. Transcription

B. Translation

C. Replication

D. Duplication

Answer: B

311. Which of the following gives maximum energy in metabolic process

A. Proteins

B. Carbohydrates

C. Vitamins

D. Fats

Answer: D

312. The chemical change in a DNA molecule that leads to the synthesis of proteins with different amino acids sequence is called

A. Allergy

B. Mutation

C. Transcription

D. Metabolism

Answer: B

313. Which of the following is molecular disease ?

A. Allergy

B. Cancer

C. Measles

D. Sickle cell anaemia

Answer: D

314. The nutrient used in the body as a source of energy as a raw material for growth and repair is

A. Fat

B. Carbohydrates

C. Proteins

D. Vitamins

Answer: C

315. The intermediate compound in the

conversion of starch to glucose is :

A. Lactose

B. Maltose

C. Fructose

D. Sucrose

Answer: B

316. Molisch's test is used for :

A. Monosaccharides

B. Disaccharides

C. Polysaccharides

D. All

Answer: D

317. Number of possible isomers of glucose is :

A. 10

B. 14

C. 16

D. 20

Answer: C



318. Glycogen on hydrolysis gives :

A. Starch

- B. Amylopectin
- C. Amylose
- D. Glucose

Answer: D



319. Carbohydrates are stored in the body as :

A. Sugars

B. Starch

C. Glucose

D. Glycogen

Answer: D

320. The enzyme that hydrolyses cellulose into

glucose is :

A. Invertase

B. Zymase

C. Lactase

D. Emulsin

Answer: D

321. Which of the following is a disaccharide:

A. Lactose

B. Starch

C. Cellulose

D. Fructose

Answer: A

322. In fermentation by zymase, alcohol and

 CO_2 are obtained from :

A. Glucose

B. Invert sugar

C. Fructose

D. All

Answer: A

323. Glycogen is :

A. Monosaccharides

B. Disaccharides

C. Trisaccharide

D. Polysaccharide

Answer: D

324. Which of the following are all disaccharides:

A. Maltose, sucrose, lactose

B. Maltose, lactose, glucose

C. Glycogen, lactose, sucrose

D. Starch, maltose, lactose

Answer: A

325. Monosaccharides containing ketonic

group are called :

A. Aldoses

B. Ketoses

C. Sucrose

D. Cellulose

Answer: B

326. Raffinose on hydrolysis forms :

A. Glucose

B. Fructose

C. Galactose

D. All

Answer: D

327. Which of the following enzymes are used

to convert starch into alcohol :

A. Maltose, diastase

B. Invertase, Zymase

C. Diastase, maltase, zymase

D. Invertase, diastase, zymase

Answer: C

328. Glucose is used in :

A. Manufacture of vitamin C

B. As preservative

C. In the manufacture of alcohol

D. All

Answer: D

Watch Video Solution

329. Glucose gives test with :

- A. Tollen's reagent
- B. Fehling's solution
- C. Benedict's solution
- D. All

Answer: D

Watch Video Solution

330. Glucose is

A. Neutral ferric chloride

B. $CHCl_3 + KOH$ (alc.)

C. Ammoniacal $AgNO_3$

D. C_2H_5ONa

Answer: C

Watch Video Solution

331. Acetone may be obtained from starch by

the action of :

A. Acid

B. Bacteria

C. Oxidising agent

D. None

Answer: B

Watch Video Solution

332. How many atoms are there in pyranose

ring:

B. 3

C. 6

D. 7

Answer: C

Watch Video Solution

333. Which does not exist?

A. Glucose

B. Fructose

C. Both (a) and (b)

D. Sucrose

Answer: D



334. Glucose reacts with acetic anhydride to

from :

A. Monoacetate

B. Tetra acetate

C. Penta acetate

D. Hexa acetate

Answer: C



335. Which of the following monosaccharide is

pentose :

A. Glucose

B. Fructose

C. Arabinose

D. Galactose

Answer: C

Watch Video Solution

336. Glucose contains :

A. One-CHO group

B. Five -OH groups

C. One primary alcoholic group and four

secondary alcohol groups

D. All are correct

Answer: D

Watch Video Solution

337. Oligosaccharides contain _____ simple sugar units :

B. 4 to 8

C. 6 to 12

D. 6 to 10

Answer: A

Watch Video Solution

338. Monosaccharides usually contain :

A. 3 to 8 carbon atoms

B. 5 to 8 carbon atoms

C. 2 to 10 carbon atoms

D. 6 to 10 carbon atoms

Answer: A

Watch Video Solution

339. Emil Fischer was awarded Nobel Prize for

his work on :

A. Sugars and purine synthesis

B. Ammonia discovery

C. Optical activity

D. Alkaloid synthesis

Answer: A

Watch Video Solution

340. Maltose is made up of :

A. α-D glucose

B. α and β -D glucose

C. Glucose and fructose

D. Fructose only

Answer: A

Watch Video Solution

341. Carbohydrates containing more than 10 simple units of sugar are called :

A. Monosaccharides

B. Disaccharides

C. Trisaccharide

D. Polysaccharide

Answer: D

Watch Video Solution

342. Now carbohydrates are regarded as :

- A. Aromatic compounds
- B. Polyfunctional compounds
- C. Alicyclic compounds
- D. Polysaccharide

Answer: B



343. Glucose on reduction with Na/Hg and water gives :

A. Sorbitol

B. Fructose

C. Saccharic acid

D. Gluconic acid





344. The important monosaccharides are :

A. Aldoses

B. Ketoses

C. Aldoses and ketoses

D. None

Answer: C



345. Which of the following is oligosaccharide

A. Sucrose

:

B. Maltose

C. Lactose

D. All

Answer: D





346. Which is polysaccharide:

A. Nylon

B. Polyethene

C. Glucose

D. Cellulose

Answer: D

347. Monosaccharides containing aldehyde

group are called :

A. Aldoses

B. Ketoses

C. Polysaccharides

D. Disaccharides

Answer: A

348. The colour of the precipitate formed when a reducing sugar is heated with Fehling's solution is :

A. Brown

B. Red

C. Blue

D. Green

Answer: B

349. Glucose and cane sugar can be

distinguished by:

A. Fehling.s solution

B. Baeyer.s reagent

C. Molisch.s test

D. lodine solution

Answer: A

350. A certain compound gives negative test with ninhydrin, but positive test with Benedict.s solution. The compound is :

A. Protein

B. Monosaccharide

C. Lipid

D. Amino acid

Answer: B

351. Carbon atoms in diamond are bonded with each other in configuration :

B. C_2

A. C_5

- $\mathsf{C.}\,C_4$
- D. C_3

Answer: B

352. Which of the following sugars is present

in genetic factor DNA molecule :

A. Glucose

B. Maltose

C. Ribose

D. Deoxyribose

Answer: D

353. Cellulose, starch and glycogen are the polysaccharides having ____ monosaccharide unit:

A. Glucose

B. Ribose

C. Fructose

D. Pentose

Answer: A

354. Colour of osazone of glucose is :

A. Red

B. Brown

C. Yellow

D. Orange

Answer: C



355. Fehling.s solution and Benedict.s solution

are reduced by glucose to form :

A. CuO

 $\mathsf{B.}\,Cu_2O$

 $\mathsf{C}. Cu(OH)_2$

D. Cu

Answer: B

356. When glucose is heated with nitric acid,

the product is :

A. Gluconic acid

B. Glucaric acid

C. Glycolic acid

D. Oxalic acid

Answer: B

357. Starch is made up of:

A. Glucose and fructose

B. Amylose and amylopectin

C. Amylose and glycogen

D. Amylopectin and glycogen

Answer: B

358. Which of the following carbohydrate is

synthesised by nature on the largest scale :

A. Glucose

B. Fructose

C. Lactase

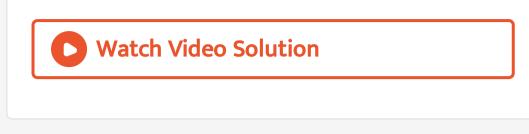
D. Cellulose

Answer: D

359. Cane sugar is made of :

A. 5	membered	glucose	ring	and	5
membered fructose ring					
B. 6	membered	glucose	ring	and	6
membered fructose ring					
C. 6	membered	glucose	ring	and	5
membered fructose ring					
D. 6	membered	glucose	ring	and	6
membered fructose ring					





360. Glycogen and amylopectin have :

- A. Same structure
- B. Similar structure but differ in branching

of glucose chain

C. Similar structure but differ in their

solubility in water

D. Similar structure but they are stored in

different parts of the body

Answer: B

Watch Video Solution

361. The carbon chain in fructose is identified

by converting in into:

A. α-methyl hexane

B. Cyclohexane

C. n-hexane

D. α -methyl caproic acid

Answer: C

Watch Video Solution

362. Formation of amylene oxide ring in glucose is an indication that ring in glucose is at:

A. C_1 and C_5

B. C_2 and C_5

C. C_3 and C_6

D. C_2 and C_4

Answer: A

Watch Video Solution

363. The polysaccharide used in the manufacture of paper is:

A. Cellulose

B. Starch

C. Glucose

D. Sucrose

Answer: A

Watch Video Solution

364. Methylation of glucose with dimethyl sulphate indicates the presence of following group in glucose :

A. -CHO group

B. -COOH group

C. -OH group

D. None

Answer: C

Watch Video Solution

365. Which of the following elements are necessary for maintaining fluid balance in the body:

- A. Calcium and magnesium
- B. Potassium and sodium
- C. Iron and magnesium
- D. None of the above

Answer: B

Watch Video Solution

366. The store house for all biological information is :

A. RNA

B. m-RNA

C. DNA

D. None of the above

Answer: C

Watch Video Solution

367. What is not true for enzymes :

A. They are powerful biocatalysts

B. They are all proteins

C. They are highly specific in their action

D. They do not lose activity on heating

Answer: D

Watch Video Solution

368. Which one is the complementary base of adenine in one strand to that in the other strand of DNA:

A. Cytosine

- B. Guanine
- C. Uracil
- D. Thymine

Answer: D



369. Which one is the complementary base in

RNA strand to the adenine base in DNA during

protein synthesis:

A. Adenine

- B. Guanine
- C. Uracil
- D. Cytosine

Answer: D



370. The enzyme that hydrolyses casein of milk

into paracasein is:

A. Renoline

- B. Renin
- C. Replication
- D. Renil

Answer: B



371. Which of the following is not a pyrimidine

base :

A. Thymine

- B. Guanine
- C. Cytosine
- D. Uracil

Answer: B



372. The process of formation of RNA from

DNA is known as :

A. Translation

- **B.** Transcription
- C. Replication
- D. Mutation

Answer: A

Watch Video Solution

373. Ribose sugar is a component of :

A. DNA

B. RNA

C. Glucose

D. Wax

Answer: B

Watch Video Solution

374. The enzyme present in saliva is :

A. Pepsin

B. Peptidase

C. Lipase

D. Ptyalin

Answer: D



375. Antibodies are

A. Carbohydrates

B. Proteins

C. Phospholipids

D. Lipids

Answer: B

Watch Video Solution

376. Pancreatic juice contains the enzyme :

A. Zymase

B. Invertase

C. Diastase

D. Lipase





377. Which of the following statements about enzymes is incorrect :

A. The catalytic action of an enzyme is not specific

B. An enzymatic reaction is highly sensitive

to temperature

C. The catalytic action of enzymes is due to

their capacity

to lower the energy of activation of a

particular reaction

D. None of these

Answer: A

378. Which of the following is not present in

RNA:

A. Ribose

B. Uracil

C. Thymine

D. Phosphate

Answer: C

379. Deoxyribonucleic acid (DNA) consists of

the following units:

A. Peptides

B. Glucosides

C. Nucleotides

D. Deoxyribose

Answer: C

380. The sugar part of DNA is :

A. Glucose

B. Sorbose

C. Ribose

D. Deoxyribose

Answer: D

381. Redness of blood is because of the presence of :

A. Iron in haeme pigment

B. Haemoglobin

C. Copper in haeme pigment

D. All

Answer: A

382. Which of the following compounds is responsible for the transmission of heredity characters:

A. RNA

B. DNA

C. Glucose

D. Haemoglobin

Answer: B

383. With which one of the pollutant gases in air, haemoglobin of blood undergoes irreversible chemical combination thus causing death. The gas is :

A. Carbon monoxide

B. Carbon dioxide

C. Sulphur dioxide

D. Ozone

Answer: A

384. A chemical substance acts as the currency of energy metabolism in a cell. It is :

A. Adenosine triphosphate

B. Adenosine diphosphate

C. Adenosine monophosphate

D. Glucose

Answer: A

385. Which statement is not correct for an enzyme :

- A. It acts as a biocatalyst
- B. Its aqueous solution is colloidal
- C. It can catalyse any chemical reaction
- D. Its catalytic efficiency is temperature

dependent

Answer: C



386. An antigen develops antibodies which protect the body from their harmful effects. The antibodies are :

A. Immunoglobulins

B. Phospholipids

C. Albumins

D. Lymphocytes

Answer: A

387. In blood, the transport of oxygen from lungs to tissues is carried out by :

A. White blood cells (leukocytes)

B. Red blood cells (erythrocytes)

C. Fibrinogen

D. Globulins

Answer: B

388. DNA molecule consists of units of:

A. Base-sugar

- B. Base-sugar-phosphate
- C. Base-phosphate
- D. None of these

Answer: B

389. The antibodies necessary to protect new

born babies from infection are derived from:

A. Cow's milk

B. Pasteurised milk

C. Mother's milk

D. Honey

Answer: C

390. The red colouring matter of blood which

transports oxygen contains an element in a

system of rings. The element is :

A. Iron

B. Magnesium

C. Cobalt

D. Calcium

Answer: A

391. Which of the following statements is incorrect ?

A. Two polynucleotide chains pointing in opposite directions are coiled to from a double

helix

- B. Both helixes are right handed
- C. The helixes have ten nucleotides

in each turn

D. The two chains are not complementary

to each other

Answer: D

Watch Video Solution

392. Oxygen, necessary for life on earth was

formed in atmosphere as a result of :

A. Eradication of ozone

B. Photosynthesis

C. Electric discharge on water

D. None of the above

Answer: B

Watch Video Solution

393. Rice has deficiency of the essential amino

acid:

A. Alanine

B. Glycine

C. Lysine

D. Leucine

Answer: C



394. Which of the following base is not present in DNA?

A. Guanine

B. Adenine

C. Thymine

D. Uracil

Answer: C



395. The simple prokaryotic cells evolved when life began on earth. Which of the following nutrients used for evolving more complex eukaryotic cells:

A. CO_2

B. N_2

- C. CO_2 and N_2
- $\mathsf{D}.\,O_2$

Answer: C

Watch Video Solution

396. Which parts of amino acid molecules are linked through hydrogen bonds in the secondary structure of proteins :

A. -SH group

- B. -COOH group
- C. C=O and -NH groups
- D. Alkyl group

Answer: C

:

Watch Video Solution

397. The structure of RNA molecule consists of

- A. Double helix
- B. Single helix
- C. Single strand
- D. Branched chain

Answer: C



398. The main point of difference between DNA and RNA is :

A. Presence of thymine in DNA and RNA

B. Presence of deoxyribose and thymine

in DNA, ribose and uracil in RNA

C. Presence of ribose and thymine in DNA,

deoxyribose and uracil in RNA

D. Presence of deoxyribose in DNA

and ribose in RNA

Answer: B

399. Insulin has 51 amino acids in two polypeptide chains which are linked by :

A. One sulphide bond

B. One disulphide bond

C. Two disulphide bonds

D. Three disulphide

Answer: C

400. Discuss the structure and function of

DNA.

A. Protein synthesis

B. Self replication

C. Store of hereditary information

D. All of the above

Answer: D

401. The purine base present in DNA is :

A. Adenine

B. Cytosine

C. Uracil

D. Thymine

Answer: A

402. Which of the following is not present in

nucleotide :

A. Guanine

B. Cytosine

C. Adenine

D. Thyroxine

Answer: D

403. The function of enzymes in the living system is to :

A. Transport oxygen

B. Provide immunity

C. Catalyse Biochemical reaction

D. Provide energy

Answer: C

404. DNA has deoxyribose and base and third

compound is :

A. Phosphate group

B. Ribose

C. Adenine

D. Thymine

Answer: A

405. Which of the following elements is responsible for oxidation for water to O_2 in the biological process?

A. Fe

B. Mn

C. Cu

D. Mo

Answer: A

406. Enzymes are :

A. Catalysts

B. Fatty acids

C. Proteins

D. Carbohydrates

Answer: C



407. Which one of the following is not present

in RNA?

A. Thymine

B. Ribose

C. Uracil

D. Phosphate

Answer: A

408. The disease .diabetes mellitus. is caused

by the deficiency of :

A. lodine

B. Insulin

C. Phenyl alanine hydroxylase

D. Lysine

Answer: B

409. The hormone used as an oral

contraceptive is :

A. Aldosterone

B. Cortisone

C. Progesterone

D. Testosterone

Answer: C

410. Bleeding gums are caused by deficiency of

A. Thiamine

:

B. Ascorbic acid

C. Folic acid

D. Vitamin E

Answer: B

411. Insulin is secreted from —

A. Ovary

B. Testes

C. Adrenal cortex

D. Pancreas

Answer: D

412. Increased blood pressure may be caused

by excess secretion of :

A. Thyroxin

B. Testosterone

C. Estradiol

D. Adrenalin

Answer: D

413. Biological catalyst (enzymes) belong to :

A. Polysaccharides

B. Synthetic polymers

C. Polypeptides

D. Poly nitrogen heterocycles

Answer: C

414. Which is not member of vitamin B complex group :

A. Retinol

B. Thiamine

C. Riboflavin

D. Pyridoxine

Answer: A

415. Which of the following nutrients is increased on sprouting the pulses such as sprouted black gram or bengal gram

A. Vitamin A

B. Vitamin B

C. Vitamin C

D. Iron

Answer: D

416. The science of using microorganisms for

the beneficial effects in industries is called:

A. Biotechnology

B. Genetic engineering

C. Enzymology

D. Microbiology

Answer: B

417. All except one may be caused by a virus:

A. Poliomyelitis

B. Influenza

C. Malaria

D. Small pox

Answer: C

418. The chief constituents of biological

membranes are:

A. Proteins

B. Waxes

C. Triglycerides

D. phospholipids

Answer: C

419. A disease can often be transmitted by

polluted water is:

A. Rabies

B. Typhoid

C. Common cold

D. Malaria

Answer: B

420. Most viruses are composed of:

A. Proteins

B. Proteins and nucleic acid

C. Cellulose and fat

D. fats and proteins

Answer: B

421. Deficiency of sodium and potassium causes:

A. Muscular cramps

B. Headache

C. Diarrhoea

D. All are correct

Answer: D

422. Progesterone is a:

A. Steroid hormone

B. Proteins hormone

C. Vitamin

D. Alkaloid

Answer: A

423. Which carbohydrate cannot be

metabolised by human being:

A. Maltose

B. Cellulose

C. Amylose

D. Amylopectin

Answer: B

424. Saliva contains:

A. Amylases

B. Bile

C. Vitamins

D. Trypsin

Answer: A



425. Bile juice aids in the digestion and absorption of fats because it contains:

A. Bile pigment

B. Lipase

C. Cholesterol

D. Bile salts

Answer: D

426. which component of the typical birth control pill is responsible for regulating the menstrual cycle:

A. Androgen

B. Estrogen

C. Progestin

D. Oxytocin

Answer: C

427. The human body does not produce:

A. Enzymes

B. Vitamins

C. DNA

D. Hormones

Answer: B



428. OXY-haemoglobin contains:

A. Less oxygen than haemoglobin

B. More oxygen than haemoglobin

C. Contains more carbon dioxide

D. Contains less carbon dioxide

Answer: B

Watch Video Solution

429. Glucose is stored in the liver in the

polysaccharide form called:



430. The digestion of starch by the enzyme amylase occurs in:

A. Stomach

B. Liver

C. Muscles

D. Small intestine

Answer: D

431. Which of the following is a female sex hormone:

A. Estrogen

B. Estradiol

C. Progesterone

D. All of the above

Answer: D

432. Emulsification of fat is brought about by:

A. Bile pigment

B. Bile salts

C. Hydrochloric acid

D. Pancreatic juice

Answer: B

433. AIDS is caused by

A. Cretinism

B. Dwarfism

C. Sterility

D. Addison's disease

Answer: D

434. All digestive enzymes are:

A. Ligases

B. Oxidases

C. transferases

D. Hydrolases

Answer: D

435. Cellophane is made from :

A. Cellulose

B. Phenol

C. Gum

D. Petroleum

Answer: A

436. Monosaccharides are :

A. Sweet

B. Sour

C. Tasteless

D. Offensive

Answer: A



437. An example of disaccharide made up of

two units of the same monosaccharides is :

A. Maltose

B. Sucrose

C. Lactose

D. None

Answer: A

438. Ring structure of glucose is due to formation of hemiacetal and ring formation between :

- A. C_1 and C_5
- B. C_1 and C_4
- C. C_1 and C_3
- D. C_3 and C_4

Answer: A



439. The charring product formed when $C_6H_{12}O_6$ is heated with conc. H_2SO_4 is due to

A. Oxidation

:

B. Reduction

C. Dehydration

D. Dehydrogenation

Answer: C

440. To become a carbohydrate, a compound

must contain atleast :

A. 6 carbons

B. 3 carbons

C. 4 carbons

D. 2 carbons

Answer: B

441. Which of the following gives reddish brown precipitate with dilute solution of resorcinol in dilute HCI:

A. Glucose

B. Fructose

C. Lactose

D. Maltose

Answer: B

442. Lactose on hydrolysis yields :

- A. Two glucose molecules
- B. Two galactose molecule
- C. A galactose and fructose molecule
- D. A galactose and a glucose molecule

Answer: D

443. Which statement about ribose is incorrect :

A. A polyhydroxy compound

B. An aldehyde sugar

C. Has six carbon atoms

D. Exhibits optical activity

Answer: C

444. The number of atoms in the ring structure of pyranose is : A. 4

B. 5

C. 6

D. 7

Answer: A



445. Main constituents of the cell walls of

plants is :

A. Cellulose

B. Glycogen

C. Lactose

D. Chlorophyll

Answer: A

446. Dextrins $(C_6H_{10}O_5)$ are used in :

A. Making adhesive

B. Confectionary

C. Sizing paper

D. All

Answer: D



447. Animal starch is the name given for :

A. Glycogens

- **B.** Lactogens
- C. Cellulose
- D. None

Answer: A



448. Cellulose trinitrate is used in preparation

of:

A. Food

- **B. Explosives**
- C. Rayon
- D. None

Answer: B

Watch Video Solution

449. Cellulose is a linear polymer of :

A. lpha glucose

B. β glucose

C. α fructose

D. None

Answer: B

Watch Video Solution

450. Glycogen is a branched polymer of :

A. α glucose

B. β glucose

C. α fructose

D. None

Answer: A



451. Gums are :

A. Polysaccharides of more than

one type of monosaccharides

B. Used as thickening agent

C. Used for improvement of texture

in food industry

D. All

Answer: D

Watch Video Solution

452. Which are called biomolecules :

A. Carbohydrate

B. Protein

C. Lipids

D. All

Answer: D



453. Nucleic acids are :

A. Polymers of nucleotides

B. Polymers of nucleosides

C. Polymers of purine bases through

phosphate ester bonds

D. Phosphate ester bonds

Answer: A

Watch Video Solution

454. The process of respiration in absence of

oxygen is called :

A. Metabolic

B. Aerobic

C. Anaerobic

D. Glycolysis

Answer: C

Watch Video Solution

455. Which of the following body parts is not

composed of structural proteins :

A. Muscle

B. Nails

C. Bones

D. Skin and bone matrix

Answer: B

Watch Video Solution

456. One mole of glucose on respiration produces :

A. 36 mole of ATP

B. 34 mole of ATP

C. 40 mole of ATP

D. 38 mole of ATP

Answer: A

Watch Video Solution

457. Which of the following hormones contains iodine :

A. Adrenalin

B. Testosterone

C. Thyroxine

D. Insulin

Answer: C

Watch Video Solution

458. The ph of fluid in the stomach is :

A. 2.0

B. 7.0

C. 4.2

D. 9.2

Answer: A



459. The purine bases present in both DNA and RNA are :

A. Guanine and adenine

B. Guanine and uracil

C. Adenine and thymine

D. Cytosine and uracil

Answer: A

Watch Video Solution

460. Bases common to DNA and RNA are :

A. Adenine, cytosine ,uracil

B. Guanine , adenine , cytosine

C. Guanine , uracil , thymine

D. Adenine , thymine , guanine

Answer: B

Watch Video Solution

461. Nucleic acids contain :

A. 4 purine bases

B. 4 pyrimidine bases

C. 2 purine bases and 3 pyrimidine bases

D. 4 pyrimidine bases and one purine base





462. Adenosine is an example of :

A. Nucleotide

- B. Nucleoside
- C. Purine base
- D. Pyrimidine base

Answer: B



463. Which of the following is a protein hormone?

A. Insulin

B. Oxytocin

C. BOTH (A) AND (B)

D. None

Answer: C





464. The chemical messenger produced in the

endocrine (duct-less) glands are grouped as:

A. Vitamins

B. Lipids

C. Antibiotics

D. Hormones

Answer: D

465. The function of DNA is :

A. To synthesise RNA

B. To synthesise the necessary proteins

C. To carry the hereditary characteristics

from generation to generation

D. All are correct

Answer: D

466. Which of the following base is found only

in RNA and not in DNA :

A. Thymine

B. Uracil

C. Adenine

D. Guanine

Answer: B

467. The element present in traces in insulin is

A. Iron

:

B. Cobalt

C. Zin

D. Magnesium

Answer: C

468. The base present only in RNA and not in

DNA is :

A. Uracil

B. Cytosine

C. Thymine

D. Guanine

Answer: A

469. The hormone which maintains blood sugar level is :

A. Oxytocin

B. Haemoglobin

C. Insulin

D. Ptylin

Answer: C

470. A compound which catalyses a chemical

reaction in a living organism is called a (n) :

A. Carbohydrate

B. Enzyme

C. Lipid

D. Vitamin

Answer: B

471. Hormones function as :

A. Chemical messengers

B. Coenzymes

C. Provitamins

D. All

Answer: A



472. Enzyme trypsin converts:

A. Amino acids into proteins

B. Glucose into glycogens

C. Starch into sugar

D. Proteins into amino acids

Answer: D

Watch Video Solution

473. The enzyme carbonic anhydrase catalyses

the change :

A. Carbonic acid to H_2O and CO_2

B. Lactose to glucose and galactose

C. Maltose to glucose

D. None

Answer: A

Watch Video Solution

474. CO- factors (non- protein prosthetic groups) used to bond conjugated proteins are

- A. Carbohydrates
- B. Phosphoric acid
- C. Iron pigments
- D. All the correct

Answer: D



475. Which of the following is proteolytic

enzyme:

A. Insulin

- B. Diastase
- C. Pepsin
- D. Adenine

Answer: C



476. Photosynthesis in plants is brought about

by chlorophyll. It involves :

A. Conversion of chemical energy into

radiant energy

B. Conversion of chemical energy into

mechanical energy

C. Conversion of solar energy into chemical

energy

D. Conversion of mechanical energy into

solar energy

Answer: C

477. In DNA the complementary bases are :

A. Adenine and thymine , guanine and cytosine B. Uracil and adenine , cytosine and guanine C. Adenine and guanine, thymine and cytosine

D. Adenine and thymine , guanine and

uracil

Answer: A



478. Mutations arise due to :

A. Infection by microorganisms

B. Abrupt changes in genes

C. Hybridisation

D. Dominant character of one of the

parents

Answer: B

Watch Video Solution

479. Sudden hereditary change is called :

A. Meiosis

B. Mitosis

C. Mutation

D. None

Answer: C

Watch Video Solution

480. DNA dictates synthesis of :

A. Proteins

B. Lipids

C. Carbohydrates

D. Glucose





481. The set of reaction in a cell which help in degradation of macromolecules is called :

A. Metabolism

B. Anabolism

C. Catabolism

D. All of the above





482. Which of the following is not a biotechnology product :

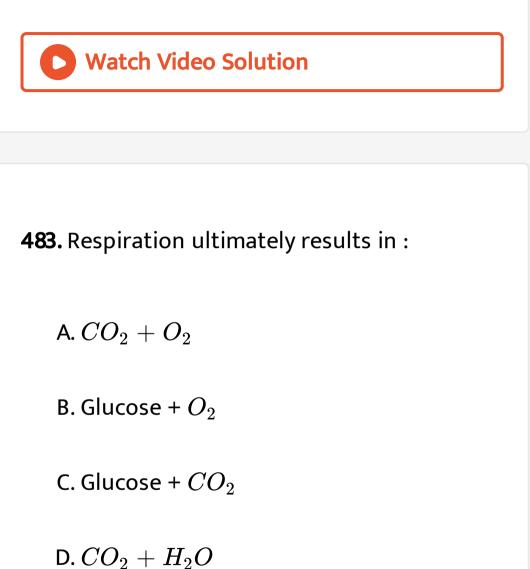
A. Interferon

B. Human insulin hormone

C. Vaccines

D. Cortisone

Answer: D



Answer: D



484. Biological reactions associated with positive ΔG values are called :

A. Exergonic

B. Endergonic

C. Exothermic

D. Endothermic

Answer: B





485. The process photosynthesis cannot occur

in the absence of :

A. Chlorophyl

B. Oxygen

C. Catalyst

D. None

Answer: A

486. During respiration , food is oxidised to carbon dioxide in the presence of oxygen . This process is called :

A. Aerobic

B. Anaerobic

C. Anabolism

D. Catabolism

Answer: A

487. Degradation of one mole of glucose provides :

- A. 36 mole of ATP
- B. 10 mole of ATP
- C. 315 mole of ATP
- D. 3 mole of ATP

Answer: A



488. Interferon is a product of biotechnology and is used against :

A. Viral diseases

B. Diabetes

C. Sickle cell anaemia

D. Haemorrhage

Answer: A

489. Blood clots due to :

A. RBC

B. WBC

C. Platelets

D. Globulins

Answer: C



490. Miller synthesised simple amino acids from:

A. H_2, NH_3, CH_4, H_2O

 $\mathsf{B}.\, H_2,\, O_2,\, N_2,\, H_2 O$

 $\mathsf{C}.\,CH_4,O_2,N_2,SO_2$

 $\mathsf{D}.\, NH_3, O_2, CO_2, HCN$

Answer: A

491. A codon on the mRNA has :

A. One base

B. Two base

C. Three base

D. Variable number of bases

Answer: C

492. Which of the following is an example of

zwitterion :

A. Urea

B. Glycine hydrochloride

C. Ammonium acetate

D. α -alanine

Answer: D

493. Among the latest discovery in cytology is :

A. Respiration

B. Genetic code

C. Enzyme

D. None

Answer: B



494. An example of natural biopolymer is :

A. Teflon

B. Nylon-6,6

C. Rubber

D. DNA

Answer: D

Watch Video Solution

495. Enzymes, in the living systems:

A. Provide energy

B. Provide immunity

C. Transport oxygen

D. Catalysed biochemical process

Answer: D

Watch Video Solution

496. The pH of the blood does not appreciably

change by small addition of an acid or a base

because blood :

A. Contains serum protein which acts as a

buffer

B. Contains iron as a part of the molecule

C. Can be coagulated easily

D. Is a body fluid

Answer: A

Watch Video Solution

497. Enzymes :

temperature

B. Consists of nucleic acids

C. Carbohydrates

D. Have all these properties

Answer: A

Watch Video Solution

498. Nucleic acids are :

- A. Phosphate-base-sugar
- B. Sugar-base-phosphate
- C. Base-sugar-phosphate
- D. Base-phosphate-sugar

Answer: C

Watch Video Solution

499. Name two fibrous proteins.

500. Deficiency of vitamin B_2 causes which disease.

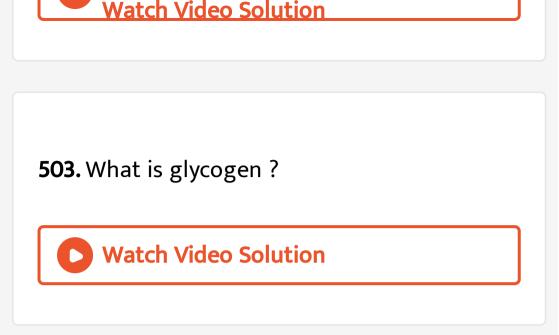


501. Write two functions of protein.

Watch Video Solution

502. What are the sources of vitamin K?



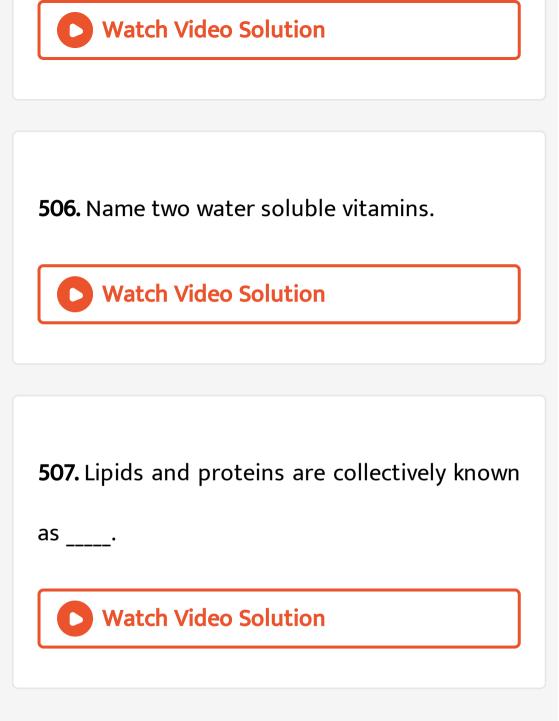


504. Why cellulose is not digested by human

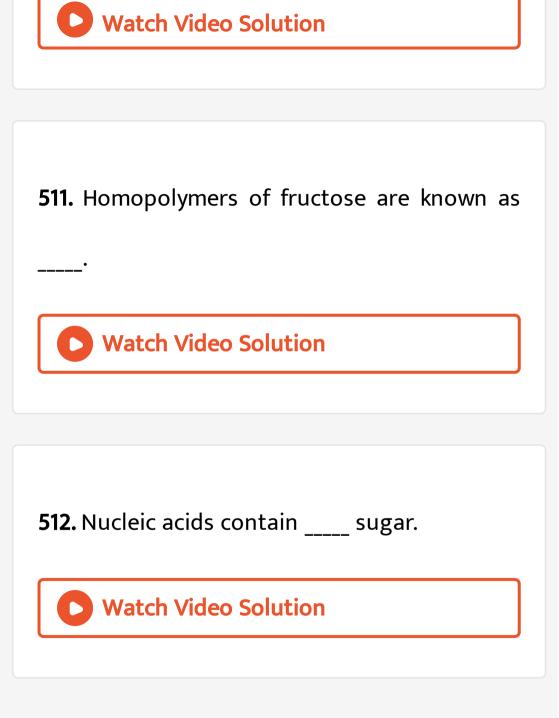
beings ?

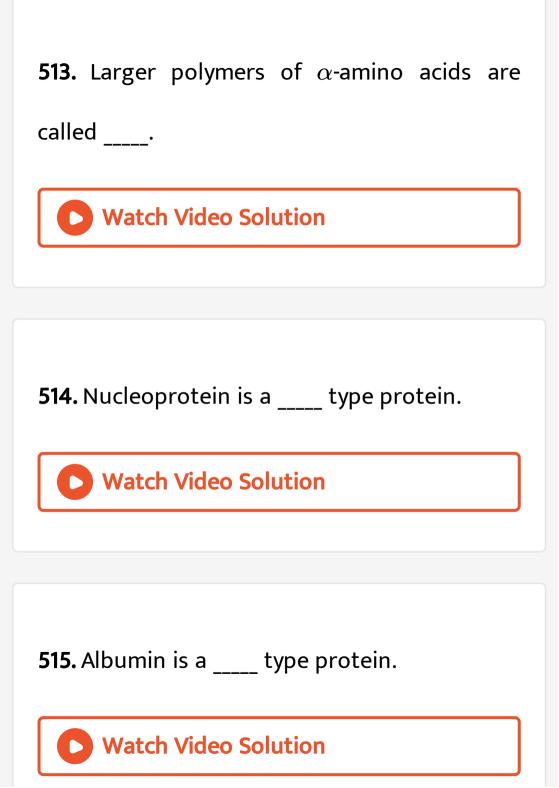
> Watch Video Solution

505. What is Zwitterion?



508. Catabolism and anabolism are collectively
known as
Watch Video Solution
509. acts as the centre of all activities of the cell.
Watch Video Solution
510. Insulin is a homopolymer of





516. Keratin is a _____ type protein.

Watch Video Solution

517. Starch undergoes hydrolysis in presence

of mineral acids to give fructose.True/false

 518. Glucose and fructose are chain

 isomers.TRUE/FALSE

 Watch Video Solution

519. Sucrose is used in silvering of mirrors.

(True/False)



520. Care sugar gives red color with Fehling.s

solution.(True/False)

Watch Video Solution

521. Hydrolysis of sucrose gives

glucose.TRUE/FALSE

Watch Video Solution

522. Glucose is a ketohexose.TRUE/FALSE

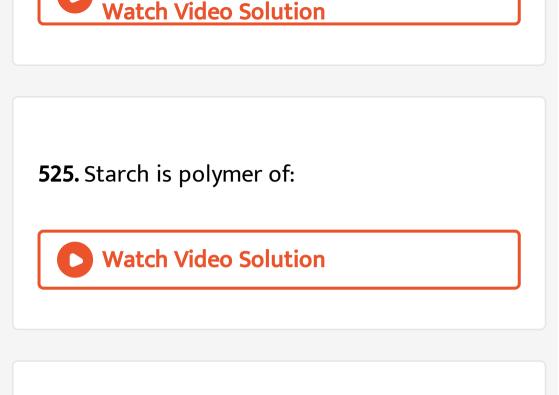


523. Molisch's reagent may be used to distinguish between cane sugar and glucose solution.(True/False)

Watch Video Solution

524. The change in optical rotation with time of freshly prepared solutions of sugar is known as :





526. The function group which is found in amino acids is -COOH.TRUE/FALSE

527. Lack of vitamin B₁ causes scurvy.
(True/False)
Watch Video Solution

528. Describe the double helical structure of

DNA.



529. The enzyme which hydrolyses triglycerides

to fatty acids and glycerol is called zymase. TRUE/FALSE

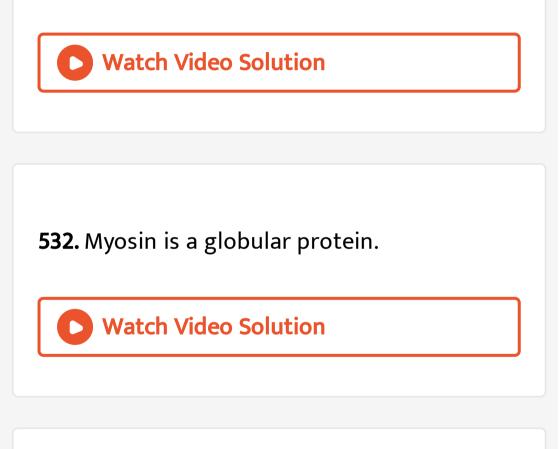


530. Helical structure of protein is stabilised

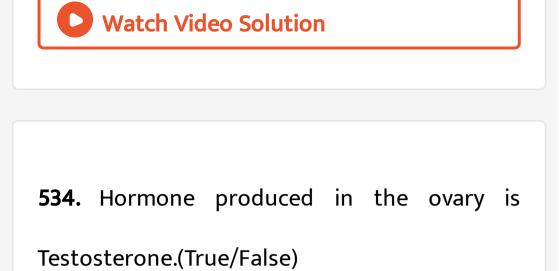
by:

531. Amino acids which has phenolic -OH group

assist backbone is Leucine.TRUE/FALSE



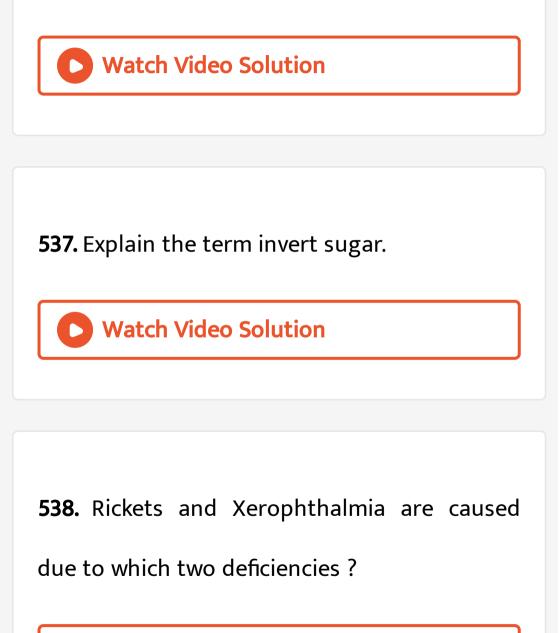
533. Thymine is present in RNA but not in DNA.SAY TRUE/FALSE



Watch Video Solution

535. What is polypeptide ?

536. Give an example of denatured protein.



539. What is biofuel ?

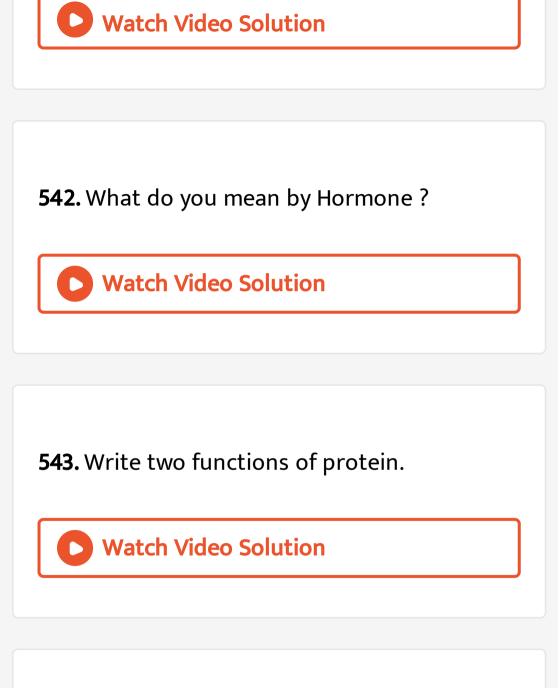
Watch Video Solution

540. Write the difference between reducing

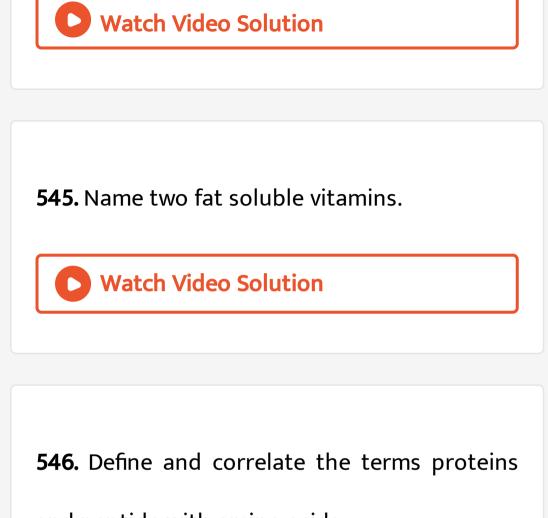
sugar and non-reducing sugar.



541. Give two functions of mitochondria.



544. Give a brief idea about insulin.



and peptide with amino acids.



547. How are sugar classified based on reducing nature of carbohydrates ?
Watch Video Solution

548. How proteins are classified depending on

their three dimensional shape ?

549. How proteins are classified on the basis of

structure?

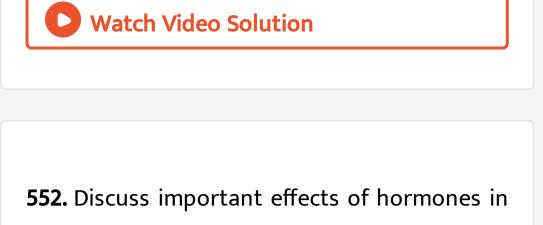
Watch Video Solution

550. Write important biological functions of

Protein.



551. Write important functions of lipids.



our body to control the biological activities.

Watch Video Solution

553. What are carbohydrates ? How are they

classified ? Give examples of each type.



554. Define and correlate the terms proteins

and peptide with amino acids.



555. How are sugar classified based on

reducing nature of carbohydrates ?

556. How proteins are classified depending on

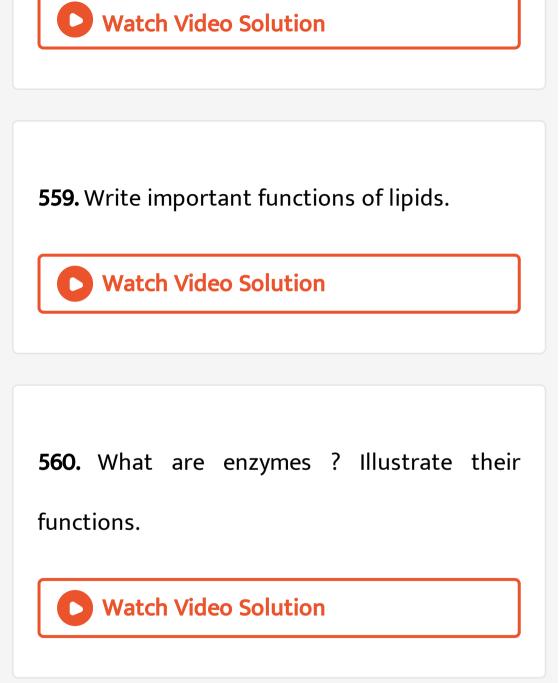
their three dimensional shape ?



557. Write important biological functions of Protein.



558. What are lipids ?



561. Discuss important effects of hormones in

our body to control the biological activities.

Watch Video Solution

562. Discuss the classification and functions of

vitamins.



563. What are nucleic acids? Write the functions of nucleic acids ?
Watch Video Solution

564. Which of the following monosaccharide is pentose :

A. Glucose

B. Fructose

C. Arabinose

D. Galactose

Answer: C

Watch Video Solution

565. Starch on hydrolysis by a dilute inorganic mineral acid gives :

A. Sucrose

B. Glucose

C. Fructose

D. Maltose

Answer: D

Watch Video Solution

566. Glucose will show mutarotation when solvent is :

A. Acidic

B. Basic

C. Neutral

D. Amphiprotic

Answer: D

Watch Video Solution

567. Which is used for making rayon (artificial silk) :

A. Starch

B. Cellulose

C. Terephthalic acid

D. Adipic acid

Answer: B

Watch Video Solution

568. The disaccharide having two glucose units

is :

A. Lactose

B. Maltose

C. Sucrose

D. Ribose

Answer: B

:

Watch Video Solution

569. Molisch's test is made for the detection of

A. Alkyl halide

B. Carbohydrate

C. Alkaloid

D. Fat

Answer: B

Watch Video Solution

570. After digestion, starch is converted into:

A. Glucose

B. Fructose

C. Lactose

D. Sucrose





571. Osazone formation involves only 2 carbon atoms of glucose because of :

A. Chelation

B. Oxidation

C. Reduction

D. Hydrolysis





572. The number of asymmetric carbon atoms

in fructose are :

A. 2

B. 3

C. 4

D. 5

Answer: B



573. Describe the preparation of ether by williamson synthesis.

A. Glucose and lactose

B. Glucose and fructose

C. Glucose and arabinose

D. Glucose and maltose





574. Milk changes after digestion into :

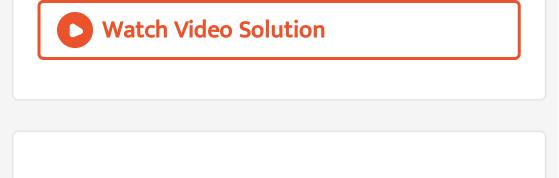
A. Cellulose

B. Fructose

C. Glucose

D. Lactose

Answer: C



575. Glucose and fructose :

A. Are isomeric compounds

B. Are polyhydroxy compounds

C. Shows epimerization

D. All

Answer: D

576. The number of asymmetric carbon atoms

in fructose are :

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

D. 6

Answer: C



577. The total number of C atoms in β -D

fructofuranose are :

A. 6

B. 5

C. 4

D. 7

Answer: A

578. Glucose reacts with acetyl chloride to form pentaacetyl glucose, it indicates presence of :

A. Five primary alcoholic groups

B. Five secondary alcoholic groups

C. Aldehyde as well as alcoholic group

D. Five -OH groups

Answer: D

579. Glucose when heated with CH_3OH in presence of dry HCl gas α - and β - methyl glycosides are formed . This is because it contains :

A. An aldehydic group

B. $-CH_2OH$ group

C. A ring structure

D. Five hydroxyl groups

Answer: C

580. Ribose sugar is a component of :

A. DNA

B. RNA

C. Glucose

D. Wax

Answer: B

581. Glucose with excess of phenylhydrazine

from :

A. Fructosazone

B. Glucose phenyl hydrazone

C. Glucosazone

D. Phenyl hydrazone of glucosazone

Answer: C

582. Which molecule possess the general formula of carbohydrates, but is not a carbohydrate :

A. Glyceraldehydes

B. Arabinose

C. Acetic acid

D. All

Answer: C



583. An aldose is converted into its next higher

homologue by :

A. Ruff's method

B. Amadori rearrangement

C. Kiliani synthesis

D. None

Answer: C

584. Fructose is prepared commercially by

a polysaccharide which occurs in dahlia tubers

and Jerusalem artichokes :

A. Insulin

B. Cellulose

C. Lactose

D. None

Answer: A

585. When glucose reacts with bromine water,

the major product is :

A. Gluconic acid

B. Saccharin acid

C. Sorbitol

D. Galactose

Answer: A

586. Blood sugar is the same as,

A. Fructose

B. Galactose

C. Glucose

D. Glycogen

Answer: C

587. An essential constituent of plant is :

A. Cellulose

B. Glucose

C. Sugar

D. Raffinose

Answer: A

Watch Video Solution

588. Which enzyme hydrolyses triglyceride to

fatty acids and glycerol

A. Amylase

B. Maltose

C. Lipase

D. Pepsin

Answer: C

Watch Video Solution

589. Cellulose is a:

A. Monosaccharide

B. Disaccharide

C. Polysaccharide

D. None

Answer: C



590. Which is not a reducing sugar :

A. Fructose

B. Glucose

C. Lactose

D. Sucrose

Answer: D



591. Give the structure of the Saccharin and

write its one use.

A. Hexose

B. Reducing sugar

C. Glucoside

D. None

Answer: D

Watch Video Solution

592. Common table sugar is more formally described as

A. Glucose

B. Lactose

C. Maltose

D. Sucrose

Answer: D

Watch Video Solution

593. Sucrose is made up of :

A. Glucopyranose and fructopyranose

B. A glucopyranose and d fructofuranose

C. A glucopyranose and d fructofuranose

D. A glucopyranose and fructopyranose

Answer: B

Watch Video Solution

594. Glycogen is :

A. A polysaccharide found in both animals

and plants

B. Polysaccharide found in plants

C. A polysaccharide found in animals

D. A polysaccharide found in honey

Answer: C

Watch Video Solution

595. Which is insoluble in water :

A. Glucose

B. Cellulose

C. Fructose

D. Sucrose

Answer: B



596. Which does not contain carbohydrate :

A. Cellulose

B. Wax

C. Starch

D. Wheat flour

Answer: B

Watch Video Solution

597. Human digestive system does not hydrolyse :

A. Starch

B. Maltose

C. Glycogen

D. Cellulose

Answer: D

Watch Video Solution

598. The change in optical rotation with time of freshly prepared solutions of sugar is known as :

A. specific rotation

B. Inversion

C. Rotatory motion

D. Mutarotation

Answer: B



599. Which differs from the rest :

A. Glucose

B. Maltose

C. Sucrose

D. Lactose

Answer: A

Watch Video Solution

600. Lactose has the same molecular formula

as:

A. Glucose

B. Maltose

C. Laevulose

D. Galactose

Answer: B

Watch Video Solution

601. Dihydroxyacetone (CH_2OH, CO, CH_2OH) has the general formula of carbohydrate but not included in this class due to :

A. It does not contain polyhydroxy gp.

B. It does not contain aldehyde gp.

C. It is not optically active

D. All

Answer: C

Watch Video Solution

602. The synthesis of carbohydrates in plants

is mainly due to :

A. Double decomposition

B. Photosynthesis

C. Hydrolysis of ingredients taken from soil

D. Nitrifying bacteria

Answer: B

Watch Video Solution

603. Glucose may be converted into fructose

by:

A. Osazone formation

- B. Lactone formation
- C. Kiliani synthesis

D. None

Answer: A

Watch Video Solution

604. The sugar present in fruits is :

A. Fructose

B. Glucose

C. Sucrose

D. Galactose

Answer: A



605. Artificial sweetener used in soft drink is :

A. Glucose

B. Fructose

C. cellulose

D. Aspartame

Answer: B

Watch Video Solution

606. Pyranose structure of glucose is

A. Hexagonal

B. Pentagonal

C. Linear

D. Tetrahedral





607. The main sugar present in honey is :

A. Sucrose

B. Glucose

C. Fructose

D. Maltose

Answer: A



608. The polymer formed with more than two

monosaccharide unit is known as :

A. Disaccharide

B. Polysaccharide

C. Both (a) and (b)

D. None

Answer: B





609. Which of the following is laevorotatory :

A. Glucose

B. Fructose

C. Sucrose

D. None

Answer: B

Watch Video Solution

610. The reaction of glucose with redP + HI is called :

A. Sandmeyer's reaction

B. Reformatsky reaction

C. Gattermann reaction

D. Reduction

Answer: D

Watch Video Solution

611. The reagent used in Ruff degradation is :

A. Baeyer's reagent

- B. Tollen's reagent
- C. Fenton reagent
- D. Benedict's reagent

Answer: C



612. A solution of d-glucose in water rotates

the plane polarised light :

A. To the right

B. to the left

C. To either side

D. None

Answer: A

Watch Video Solution

613. Raffinose is :

A. Monosaccharide

B. Disaccharide

C. Trisaccharide

D. None

Answer: C



614. Amino acid present in insulin are:

A. 51

B. 15

C. 25

D. 475

Answer: A

Watch Video Solution

615. Which are not the essential constituents

of balanced diet:

A. Carbohydrates

B. Fats

C. Proteins

D. Hormones

Answer: D

Watch Video Solution

616. The hormone responsible for bolting is

A. Is secreted by pancreas

- B. Is secreted by thyroid
- C. Decreases blood sugar
- D. Does not stimulate metabolism

Answer: B

Watch Video Solution

617. Which one of the following proteins

transports oxygen in the blood stream:

A. Myoglobin

B. Insulin

C. Albumin

D. Haemoglobin

Answer: D

Watch Video Solution

618. Which is an amino acid:

A. Histidine

B. Glycine

C. α -alanin

D. Threonin

Answer: B

Watch Video Solution

619. Which one is a test for proteins:

A. Brillstein test

B. Biuret test

C. Benedict's test

D. Molisch's test

Answer: B



620. The destruction of the biological nature and activity of proteins by heat or chemical agent is called:

A. Dehydration

- **B.** Denaturation
- C. Denitrogenation
- D. Deamination

Answer: B

Watch Video Solution

621. Which of the following biomolecules

always contain nitrogen:

A. Carbohydrates

B. Proteins

C. Oils and fats

D. Waxes

Answer: B

Watch Video Solution

622. Proteins are polymer of amino acids . Which of the following is not a protein

A. Wool

B. Nail

C. Enzyme

D. Nucleoside

Answer: D

Watch Video Solution

623. Kwashiorkar is caused by the deficiency of:

A. Vitamins

B. Hormones

C. Amino acids

D. Essential amino acids

Answer: C

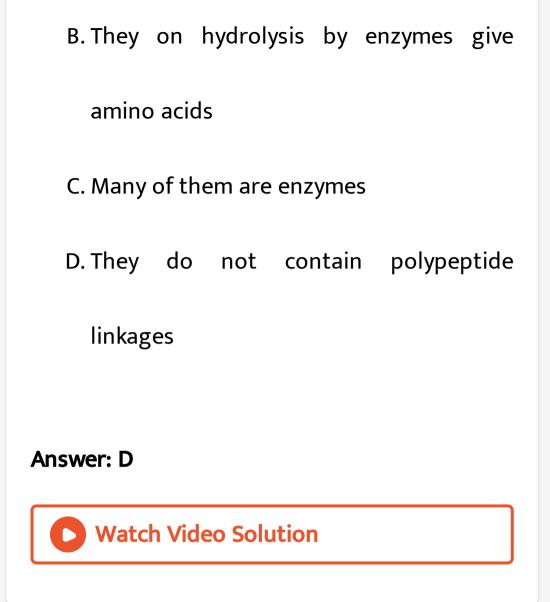


624. Point out of the wrong statement about

proteins:

A. They are nitrogenous organic

compounds of high molecular mass



625. Secondary structure of proteins refers to:

A. Mainly denatured proteins and structure

of prosthetic group

B. Three dimensional structure specially

the bond between amino acid residues

that are distant from each other in

polypeptide chain

C. Linear sequence of amino acid residue in

the polypeptide chain

D. Regular folding patterns of continuous

portion of the polypeptide chain





626. Ascorbic acid is:

A. Vitamins C

B. Enzyme

C. Proteins

D. Lipid

Answer: A



627. The organic compounds of high physiological importance which are essential in small amounts for the well being of all human beings are:

A. Proteins

B. Vitamins

C. Mineral salts

D. Enzymes





628. Vitamin A is also known as:

A. Xerophythol

B. Thiamine

C. Riboflavin

D. Pyridoxine

Answer: A



629. Deoxyribonucleic acid (DNA) is a polymer

of units called:

A. Sugars

B. Ribose

C. Amino acids

D. Nucleosides

Answer: D





630. Vitamin C deficiency may cause:

A. Beriberi

B. Rickets

C. Night blindness

D. Teeth & scurvy disease

Answer: D

631. The antisterility or anti reproductive vitamin is:

A. B

B.C

C. D

D. E

Answer: D

632. The aqueous solution of which vitamin is

dark pink in colour:

A. B_1

 $\mathsf{B}.\,B_2$

 $\mathsf{C}.B_6$

D. B_{12}

Answer: D



633. Which is fat soluble vitamin:

A. Vitamin A

B. Pyridoxine

C. Riboflavin

D. Thiamine

Answer: A

634. Citrus fruits are an important source of

vitamin:

A. B

B.C

C. D

D. K

Answer: B

635. Which one of the following compounds is

not a vitamin:

A. Ascorbic acid

B. Thiamine

C. Testosterone

D. Riboflavin

Answer: C

636. Which vitamin contains N:

A. Vitamin A

B. Vitamin C

C. Vitamin B

D. Vitamin D

Answer: C

637. The chemical messenger produced in the

endocrine (duct-less) glands are grouped as:

A. Polypeptides

B. Hormones

C. Bile salts

D. Purines

Answer: B

638. Vitamin D is also known as:

A. Growth vitamin

B. Ascorbic acid

C. Reproductive vitamin

D. Sunshine vitamin

Answer: D

639. Which of the following vitamins contains

isoprene unit:

A. A

B.C

 $\mathsf{C}.\,B_2$

D. D

Answer: A

640. Nucleotides and nucleosides mainly differ

from each other in :

A. Presence of phosphate units

B. Presence of base units

C. Presence of nucleic acids

D. None

Answer: A

641. Vitamin which is believed to cure common

cold is :

A. A

B.C

C. K

D. E

Answer: B

642. Which of the following vitamins is present

in cod-liver oil:

A. A

 $\mathsf{B.}\,B_{12}$

 $\mathsf{C}.\,B_1$

D. C

Answer: A



643. The vitamin that is most readily manufactured in our bodies is :

A. Vitamin A

B. Vitamin B

C. Vitamin C

D. Vitamin D

Answer: D

644. An example of a water soluble vitamin is :

A. Vitamin

B. Vitamin C

C. Vitamin D

D. Vitamin E

Answer: B



645. Deficiency of vitamin E causes:

A. Sterility

B. Rickets

C. Beri-Beri

D. Scurvy

Answer: A



646. The vitamin which is water soluble and antioxidant is :

A. Vitamin E

B. Vitamin D

C. Vitamin C

D. Vitamin B_1

Answer: C

Watch Video Solution

647. A vitamin which plays a vital role in the

coagulating property of blood is :

A. Vitamin A

B. Vitamin D

C. Vitamin E

D. Vitamin K

Answer: D

Watch Video Solution

648. Scurvy is caused due to deficiency of :

A. Vitamin B_1

B. Vitamin B_2

C. Ascorbic acid

D. Glutamic acid

Answer: C

Watch Video Solution

649. Beri-Beri is caused due to :

A. Vitamin A

B. Vitamin B_1

C. Vitamin C

D. Vitamin D

Answer: B



650. Which one of the following vitamins

deficiency causes rickets:

A. Vitamin A

B. Vitamin B

C. Vitamin C

D. Vitamin D

Answer: D



651. Which one of the following vitamins

contains a metal atom:

A. Riboflavin

B. Vitamin B_{12}

C. Vitamin A

D. Vitamin B_6

Answer: B



652. Vitamin C is a :

A. Alcohol

B. Amide

C. Amine

D. Lactone

Answer: A

Watch Video Solution

653. Vitamin B_1 is chemically known as :

A. Ascorbic acid

B. Riboflavin

C. Pyridoxine

D. Thiamine

Answer: D



654. Deficiency of which vitamin can cause night blindness an eye disease:

A. Vitamin B_6

B. Vitamin C

C. Vitamin B_{12}

D. Vitamin A





655. Which enzyme hydrolyses triglyceride to

fatty acids and glycerol

A. Amylase

B. Maltase

C. Lipase

D. Pepsin





656. Which is not a poison for enzymes:

- A. CN^{-}
- $\mathsf{B.}\,Fe^{3\,+}$
- $\mathsf{C.}\, Pb^{2\,+}$

D.
$$As_4^{3\,-}$$

Answer: B



657. Vitamin A is present in :

A. Liver

B. Milk

C. Green vegetables

D. All

Answer: D

658. Which of the following contains vitamin

D:

A. Calciferol

B. Keratin

C. Tocopherol

D. None

Answer: A

659. Vitamin C is a :

A. Beans

B. Wheat

C. Carrots

D. Oranges

Answer: C



660. Which of the following is a vitamin:

A. Riboflavin

B. Thyroxine

C. Adrenaline

D. Guanine

Answer: A



661. Which of the following hormones helps in the conversion of glucose into glycogen in the body:

A. Insulin

B. Cortisone

C. Thyroxin

D. Oxytocin

Answer: A

662. The non-proteinaceous substances which certain enzymes require for their activity are called:

A. Catalysts

B. Inhibitors

C. Co-enzymes

D. Epimers

Answer: C

663. The substance constituting more than

80~% of cell contents is :

A. Protein

B. Mineral

C. Fat

D. Water

Answer: D

664. Cryoscopy is related with

A. Quick digestion

- B. Slow heartbeat
- C. Either of these
- D. None of these

Answer: D



665. The conversion of glucose into glycogen

in liver is called:

A. Glycogenolysis

B. Glycogenesis

C. Glycolysis

D. Gluconeogenesis

Answer: B

666. Prolonged deficiency of nicotinic acid

(niacin) in human diet leads to:

A. Beri-Beri

B. Pellagra

C. Scurvy

D. Anaemia

Answer: B

667. The Ph of stomach is:

A. 7

B. 6

C. 10

D. 2

Answer: D



668. The energy stored in the cells of a living

body is in the form of:

A. Fats

B. Glucose

C. ATP

D. Proteins

Answer: C

669. Element found in plant systems which forms an important constituent of photosynthesis is:

A. Iron

B. Copper

C. Vitamins

D. Sodium

Answer: C

670. Which of the following disease is a STD?

A. Epilepsy

B. AIDS

C. Color blindness

D. Leucoderma

Answer: C



671. The principal buffer present in the blood

is:

A. CH_3COONH_4

$\mathsf{B.}\,CH_3COOH\,/\,CH_3COONa$

 $\mathsf{C}.\,H_2CO_3\,/\,HCO_3^-$

D. $NaH_2PO_4Na_2HP_4$

Answer: C

672. The cells having membrane bound

nucleus are called:

A. Eukaryotic

B. Prokaryotic

C. Plant tissue cell

D. Animal tissue cell

Answer: A

673. Artificial gene was first synthesised by:

A. Khorana

- **B.** Watson and Crick
- C. Chargaff
- D. Wilkins

Answer: A



674. Which of the following is a female sex

hormone:

A. Adrenaline

B. Estrone

C. Cortisone

D. Testosterone

Answer: B

675. Hydrolysis of adenosine triphosphate,

involves rupture of:

A. Base-sugar bond

B. Sugar-phosphate bond

C. P-O-P bond

D. Consumption of the whole molecule

Answer: C

676. Oxygen balance in the atmosphere maintained through the process of:

A. Photosynthesis

B. Protein synthesis

C. Amino acid synthesis

D. Fat synthesis

Answer: A

677. Universal recipient in blood transfusion

belongs to the group:

A. Adrenaline

B. B

C. AB

D. 0

Answer: C

678. What are the end products of respiration:

A. Glucose $+CO_2$

B. Glucose $+O_2$

 $\mathsf{C}.\,H_2O+CO_2$

 $\mathsf{D.}\, CO_2 + O_2$

Answer: C

679. Blood transports:

A. Oxygen

B. Carbon dioxide

C. Oxygen and carbon dioxide

D. None of the above

Answer: C

680. Which of the following is a genetic trait in

man:

A. Albinism

B. Leucoderma

C. Tuberculosis

D. Diphtheria

Answer: A

681. In which of the following steps largest

number of ATP are produced :

A. Glycolysis

B. Kreb's cycle

C. Hydrolysis

D. Terminal respiratory chain

Answer: B

682. The 'Y' shaped protein molecules involved

in the immune system are called:

A. Antigen

B. Immunoglobulin

C. Pathogens

D. None of the above

Answer: B

683. Haemophilia is a disease caused by

deficiency of:

A. RBCs

B. WBCs

C. Thromboplastin

D. Water in plasma

Answer: C

684. Carbohydrates have the general formula $C_X(H_2O)_Y$. Which of the following is not a carbohydrate:

A. $C_{6}H_{16}O_{6}$

 $\mathsf{B.}\,C_6H_{10}O_5)_n$

C. $C_{12}H_{22}O_{11}$

 $\mathsf{D.}\, C_2 H_4 O_2$

Answer: D



685. The general formula of carbohydrates is:

A. $C_n H_{2n+1} O$

 $\mathsf{B.}\, C_n H_2 n O$

C. $C_n(H_2O)_n$ or $C_x(H_2O)_y$

D. $C_n(H_2O)_2n$

Answer: C

686. Carbohydrates are stored in the body as :

A. Hydrates of carbon

B. Polyhydroxy aldehydes or, ketones

C. Polyhydroxy acids

D. None

Answer: B

687. Many of the carbohydrates are sweet in

taste because of:

A. They give sugars on hydrolysis

B. Covalent bonding

C. Electrovalent bonding

D. Coordinate bonding

Answer: A

688. Which carbohydrate is as important as steel and is employed in manufacture of many articles in daily use as well as most abundant in nature:

- A. Cellulose
- B. Glucose
- C. Starch
- D. Sucrose

Answer: A



689. Carbohydrate contains

A. -OH gp

B. -CHO gp



D. All

Answer: D

690. Aqueous solution of which carbohydrate give a dark blue colour with a few drops of iodine solution

A. Sucrose

B. Starch

C. Glucose

D. Fructose

Answer: B

691. Aqueous solution of carbohydrate with 2 drops of alcoholic solution of α -napthol and H_2SO_4 gives a ring at the junction . The colour of the ring is

A. Yellow

B. Green

C. Violet

D. Red

Answer: C

692. Which reagent is used for detection of

sugar in urine

A. Baeyer's agent

B. Ozonolysis

C. Fehling's agent

D. None

Answer: C

693. Starch can be used as an indicator for the detection of the traces of

A. Glucose in aqueous solution

B. Proteins in blood

C. lodine in aqueous solution

D. Urea in blood

Answer: C

694. Glucose cannot be classified as:

A. A hexone

- B. A carbohydrate
- C. An oligosaccharide
- D. An aldose

Answer: C

695. On heating with conc. H_2SO_4 sucrose gives:

A. CO and CO_2

B. CO and SO-2

 $\mathsf{C}.\mathit{CO},\mathit{CO}_2\mathsf{and}SO_2$

D. None of the above

Answer: D

696. The letter D in carbohydrates represents

A. Its direct synthesis

B. Its dextrorotation

C. Its mutarotation

D. It configuration

Answer: D



697. Glucose reacts with methyl alcohol to give

- A. α -methyl glucoside
- B. β -methyl glucoside
- C. Both (a) and (b)
- D. None

Answer: C

Watch Video Solution

698. The epimer of glucose is

A. Galactose

B. Fructose

C. Mannose

D. Arabinose

Answer: B

Watch Video Solution

699. α -glucose and β -glucose are

A. Isomers

B. Anomers

C. Epimers

D. Tautomers

Answer: B



700. Glucose is

A. Monosaccharide

B. Disaccharide

C. Trisaccharide

D. Polysaccharide

Answer: A

Watch Video Solution

701. Fructose contains

- A. 50H groups
- B. 3 secondary alcoholic groups
- C. 2 primary alcoholic group and keto gp

D. All





702. Which of the following is a disaccharide:

A. Sucrose

B. Glucose

C. Fructose

D. Starch

Answer: A



703. Cane sugar on hydrolysis yields:

- A. Glucose and maltose
- B. Glucose and lactose
- C. Glucose and fructose
- D. Only glucose

Answer: C

704. Glucose gives the silver mirror test with ammoniacal solution of silver nitrate because it contains :

A. Aldehydes gp

B. Ester gp

C. Ketone gp

D. Amide gp

Answer: A

705. Glucose and fructose are :

A. Chain isomers

B. Position isomers

C. Functional isomers

D. Optical isomers

Answer: C

706. Glucose and fructose differ in :

A. Taste

- B. Action of heat
- C. Action of Tollen's reagent
- D. Direction of optical rotation

Answer: D

707. Direct conversation of starch into glucose

may be carried out by:

A. Fermentation with diastase

B. Fermentation with zymase

C. Heating it with dil. HCL

D. Fermentation with maltose

Answer: C

708. Which is sweet among known sugars,

A. Sucrose

B. Fructose

C. Glucose

D. Lactose

Answer: B

709. The ultimate product of the hydrolysis of

starch is :

A. Glucose

B. Fructose

C. Sucrose

D. None

Answer: A

710. Glucose and fructose are readily

distinguished by using :

A. Molisch test

B. Salivanoff test

C. Tollen's reagent

D. None of these

Answer: B

711. Identify the product Z in the following

:

series of reactions $C_6H_{12}O_6 \xrightarrow{HCN} X \xrightarrow{H_2O} Y \xrightarrow{HI} Z$

A. Hexanoic acid

B. α -methyl caproic acid

C. Heptanoic acid

D. None of these

Answer: C

712. Invert sugar is :

A. Chemically inactive form of sugar

B. Equimolecular mixture of glucose

fructose

C. Mixture of glucose and sucrose

D. A variety of cane sugar

Answer: B

713. Milk sugar is (a disaccharide):

A. Sucrose

Β.

C. Fructose

D. Glucose

Answer: B



714. Which of the following is a ketohexose:

A. Glucose

- **B.** Fructose
- C. Sucrose
- D. Starch

Answer: C



715. The reagent used to distinguish between

starch and sugar solution is:

A. Ammoniacal silver nitrate

- B. Fehling's solution
- C. Benedict's solution
- D. Iodine solution

Answer: A

Watch Video Solution

716. Starch is polymer of:

A. Fructose

B. Glucose

C. Lactose

D. None

Answer: B

Watch Video Solution

717. When sucrose is heated with Fehling's solution, the product formed is:

A. Saccharic acid

B. Oxalic acid

C. Formic acid

D. Invert sugar

Answer: D

Watch Video Solution

718. Which does not react with Fehling.s solution:

A. Acetaldehyde

B. Benzaldehyde

C. Glucose

D. Formic acid

Answer: B

Watch Video Solution

719. Starch is changed into disaccharides in presence of:

A. Diastage

B. Maltase

C. Lactase

D. Zymase

Answer: C

Watch Video Solution

720. Glucose is hydrolysed by zymase into:

A. Dicarboxylic acid

B. Alcohol

C. Amino acids

D. Aromatic acids

Answer: C



721. How are you able to test sugar in a given

sample of wine:

A. By Molisch's test

B. By Dunstan's test

C. By Biuret test

D. By Legal's test

Answer: B



722. which carbohydrate serves as reserve

glucose in body?

A. Sucrose

B. Starch

C. Glycogen

D. Fructose

Answer: C



723. Acetyl derivative of which carbohydrate is

used in sizing industry:

A. Glucose

B. Fructose

C. Lactose

D. Starch

Answer: B



724. The carbohydrates are important constituent of our diet, they function as:

A. Bio fuels of provide energy

B. Shock absorbing pad

C. Heat insulator

D. None

Answer: C



725. Glucose forms many derivatives. The derivative which will help to prove the furanose structure is:

A. Osazone

B. Benzoyl

C. Acetyl

D. Isopropylidene

Answer: C

Watch Video Solution

726. A compound of non-sugar and glucose which yields glucose on hydrolysis found in plants, is called:

A. Alkoxide

B. Glucoside

C. Glycoside

D. None of these

Answer: B

Watch Video Solution

727. An essential constitution of a diet is:

A. Starch

B. Glucose

C. Carbohydrate

D. Cellulose

Answer: B

Watch Video Solution

728. Which carbohydrate is used in silvering of

mirrors:

A. Sucrose

B. Starch

C. Glucose

D. Fructose

Answer: B

Watch Video Solution

729. Glucose gives many reactions of aldehyde

because:

A. It is hydrolysed to acetaldehyde

B. It is a polyhydroxy ketone

C. It is a cyclic aldehyde

D. It is a hemiacetal in equilibrium with its

aldehyde form in solution

Answer: B

Watch Video Solution

730. Amylose is a polymer of:

A. α -D glucopyranose

B. Fructose

C. β -fructose

D. β -D fructose

Answer: D

Watch Video Solution

731. The ultimate products of oxidation of most of hydrogen and carbon in food-stuffs are:

A. H_2O alone

B. CO_2 alone

C. H_2O and CO_2

D. None of these

Answer: D

Watch Video Solution

732. It is best to carry out reactions with sugars in neutral or acid medium not in alkaline medium. This is because in alkaline

medium sugar undergoes one of the following

changes.

A. Decomposition

B. Inversion

C. Rearrangement

D. Racemization

Answer: A

733. The calorific values of fats, carbohydrates and proteins vary in the order:

A. Fats gt Carbohydrates gt Proteins

B. Fats gt Proteins gt Carbohydrates

C. Carbohydrates gt Proteins gt Fats

D. Proteins gt Carbohydrates gt Fats

Answer: B

734. Proteins mainly contain:

A. C, H, O and N

B. Only C and H

C. C, H and O

D. N and H

Answer: B

735. A substance gives ninhydrin test. It is most likely a:

A. Lipid

B. Vitamin

C. Shock absorber

D. Protein

Answer: A

736. Proteins are composed of:

A. Nucleotides

B. Nucleosides

C. Dipeptides

D. Amino acids

Answer: C

737. In human body enzymes hydrolyse protein into:

A. A ketogenic aids like $CH_3COCOOH$

B. A hydroxy acid like $CH_3CHOHCOOH$

C. Dicarboxylic acid like COOHCOOH

D. Amino acids like CH_2NH_2COOH

Answer: D

738. Which statement about protein is wrong:

A. Proteins occur in all living cells

B. Proteins invariably contain N, O, C and H

C. Proteins are synthesised by plant

kingdom only

D. Proteins are also synthesised in

laboratory

Answer: D

739. Proteins do not respond to:

A. Biuret test

B. Lucas test

C. Ninhydrin test

D. Xanthoproteic test

Answer: B

740. Amino acids usually exist in the form of Zwitterions which consist of:

A. The basic group $-NH_2$ and the acidic group -COOHB. The acid group $-NH_3^+$ and the basic group CO_2^- C. The acid group CO_2^+ and the acidic

D. No acidic or basic group

group NH_3^-





741. A compound of formula NH_2CH_2COOH may behave:

- A. Only as an acid
- B. Only as a base
- C. Both acid and base
- D. Neither acid nor base

Answer: B



742. The helical structure or a secondary structure of proteins is stabilized by:

A. Peptide bonds

B. Dipeptide bonds

C. H-bond

D. None





743. The sequence in the structure of nucleic acid is:

A. Base + phosphate group + pentose

B. Phosphate group + pentose + base

C. Pentose + base + phosphate group

D. All





744. Who pointed out peptide linkage in proteins:

A. Kekule

B. Hofmann

C. Fisher

D. Cannizzaro





745. Protein can be most easily removed by:

A. Alkanes

B. Alkenes

C. Alkynes

D. Benzene

Answer: C



746. Point out the correct statement about proteins:

A. They are nitrogenous organic

compounds of high molecular weights

B. They on hydrolysis by enzyme give amino

acids

C. Many of them are enzymes

D. All





747. One of the essential alpha amino acids is:

A. Lysine

- B. Glycine
- C. Serine
- D. Proline





748. Which of the following contains the highest percentage of proteins:

A. Groundnut

- B. Cow's milk
- C. Egg
- D. Wheat

Answer: B





749. The proteins are hydrolysed with acids,

alkalies or enzymes finally to:

A. Amino acids

B. Ethers

C. Esters

D. Cycloparaffins

Answer: D

750. The main structural feature of protein is:

A. The ester linkage

B. The ether linkage

C. The peptide linkage

D. All of the above

Answer: A

751. The enzyme pepsin hydrolyses:

A. Proteins to amino acids

B. Fats to fatty acids

C. Glucose to ethyl alcohol

D. Polysaccharides to monosaccharides

Answer: D

752. Protein is an important constituent of our

diet. It functions mainly as:

A. A source of energy

B. Construction material

C. Shock absorber

D. Reserve food

Answer: D

753. The end product of protein digestion is:

A. Amino acids

B. Glucose

C. Glycerol

D. Oxalic acid

Answer: C

754. The energy change produced by the combustion of foods is called the calorific value.. The best calorific value is given by:

A. Proteins

B. Fats

C. Carbohydrates

D. Vitamins

Answer: C

755. Biuret test is used for the detection of:

A. Saturated oils

B. Sugars

C. Proteins

D. Fats

Answer: B



756. Proteins give:

A. A violet colour with alkaline $CuSO_4$ solution

B. Form a purple colour on boiling with

dilute ninhydrin solutions

C. Yellow colour on boiling with HNO_3

D. All

Answer: C

757. Which of the following is proteins:

A. Terry cotton

B. Natural silk

C. Nylon

D. Reyon

Answer: A

758. Which is an amino acid:

A. Glycine

B. Valine

C. Lysine

D. All

Answer: A

759. Which of the following is a simple protein?

A. Albumin

B. Globulin

C. Glutenin

D. All

Answer: B

760. Which is a protein:

A. Gelatin

B. Casein

C. Plasma protein

D. All

Answer: A

761. Which of the following have coiled helical

structure:

A. Proteins

B. Lipids

C. Carbohydrates

D. Vitamins

Answer: C

762. Globular proteins are present in:

A. Bood

B. Eggs

C. Milk

D. Body fluids

Answer: B



763. Keratin, a structural protein is present in:

A. Hair

B. Skin

C. Wool

D. Horn

Answer: C

Watch Video Solution

764. The protein is responsible for transport of

oxygen in the bloodstream is

- A. Haemoglobin
- B. Insulin
- C. Collagen
- D. Albumin

Answer: A



765. Which of the following is not a classification of proteins

A. Enzymes

- **B.** Antibiotics
- C. Antigens
- D. Hormones

Answer: B



766. Which protein is main constituent of milk

A. Keratin

B. Casein

C. Myosin

D. Insulin

Answer: B

Watch Video Solution

767. On heating with conc. HNO_3 proteins give yellow colour. This test is called

A. Oxidising test

B. Xanthoproteic test

C. Hoppe's test

D. Acid base test

Answer: B

Watch Video Solution

768. Naturally occuring polymer of amino acids

is

A. Polythene

B. PVC

C. Proteins

 $\mathsf{D.}\,CH_3COOH$

Answer: C

Watch Video Solution

769. Proteins are polymer of amino acids . Which of the following is not a protein

A. Wool

B. Nails

C. Hair

D. DNA

Answer: D

Watch Video Solution

770. Molecular weight of a protein is

A. 10000

B. 1,000-10,000

C. 100-1,000

D. gt10,000

Answer: D



771. A Protein that controls the metabolism of

glucose is

A. Oxytocin

B. Insulin

C. Haemoglobin

D. Keratin

Answer: B



772. Insulin, a protein acts as

A. An antibody

B. A hormone

C. An enzyme

D. A transport agent

Answer: B

Watch Video Solution

773. Protein which acts as hormone is

A. Casein

B. Oxytocin

C. Trypsin

D. Keratin





774. Decarboxylation of glycine yields

- A. CH_4
- $\mathsf{B.}\,CH_3COOH$
- $\mathsf{C.}\,CH_3NH_2$
- D. Ethanamide





775. The purine base present in RNA is

A. Guanine

B. Thymine

C. Cytosine

D. Uracil

Answer: D

776. Which vitamin is closely involved in the formation of collegent-protein present in connective tissues and bones

A. Riboflavin

B. Ascorbic acid

C. Niacin

D. Cyanocobalamin

Answer: B

777. Simple proteins bonded with a nonprotein prosthetic group (acting as cofactor) are called

A. Simple proteins

B. Conjugated proteins

C. Proteonic proteins

D. None

Answer: B

778. Which of the following is a conjugated protein

- A. Glucoprotein
- B. Phosphoprotein
- C. Chromoprotein
- D. All are correct

Answer: D



779. Proteins give a white precipitate with Millon's reagent, which is

A. Mercurous and mercuric nitrate in HNO_3

B. Mercurous and mercuric chloride in *HCL*

C. Mercurous and mercuric chloride in

 HNO_3

D. None





780. Blood protein is

A. Albumin

- B. Haemoglobin
- C. Both (a) and (b)

D. None





781. Microbes are present in

A. Wool

B. Silk

C. Nails

D. Skin



782. Compounds containing both $-NH_2$ and

-COOH groups are called

A. Proteins

B. Dicarboxylic acids

C. Amino acids

D. α -hydroxy acids

Answer: C

783. The pH value of a solution in which a polar amino acid does not migrate under the influence if electric field is called

A. Isoelectronic points

B. Isoelectric point

C. Neutralisation point

D. None

Answer: A

784. Two reactions are said to be coupled if

A. Both δG_1 and δG_2 are negative

B. δG_1 is positive but δG_2 is negative

C. δG_1 and δG_2

D. None of the above

Answer: B



785. The no. of polypeptide chains present in a

molecule of haemoglobin is

A. One

B. Two

C. Three

D. Four

Answer: D

786. The Ph of blood is (approximately)

A. 7.4

B. 5.2

C. 11.3

D. 9.6

Answer: A



787. Hyperglycemia refers to

A. High blood sugar level

B. High salt conc. In blood

C. High blood pressure

D. Low sugar level in blood

Answer: A

Watch Video Solution

788. Digestion of fat in intestine is aided by :

A. Diffusion

B. Protection

C. Peptization

D. Emulsification

Answer: D

Watch Video Solution

789. Which of the following is the female sex

hormone

A. Estrone

B. Testostrene

C. Cortisone

D. Thyroxine

Answer: A

Watch Video Solution

790. The hydrolysis of starchy foods begins in

the mouth by enzymes present in saliva . The

enzymes are

A. Amylase

B. Protease

C. Ptyalin

D. Maltase

Answer: C

Watch Video Solution

791. Enzymes trypsin converts

A. Proteins into α -amino acids

B. Starches into sugar

C. Glucose into glycogen

D. α -amino acids into proteins

Answer: A

Watch Video Solution

792. The primary products of photosynthesis

in green plants . It contains the element

A. Fructose

B. Glucose

C. Maltose

D. Cellulose

Answer: B

Watch Video Solution

793. Chlorophyll is the green colouring matter

of plant . It contains the element

A. Sodium

B. Potassium

C. Magnesium

D. Manganese

Answer: C

Watch Video Solution

794. Which of the following is provitamin A

A. Carotene

B. Calciferol

C. Ascorbic acids

D. Ergosterol

Answer: A



795. The green pigment of plants essential for

the formation of carbohydrates by

photosynthesis is

A. Acrophyll

B. Lyphyll

C. Chlorophyll

D. None of the above

Answer: C

Watch Video Solution

796. Which of the following regulates the metabolism of sugars

A. Thyroid

B. Insulin

C. Hydrocortisone

D. None

Answer: B

Watch Video Solution

797. In the chemical sense digestion is basically

A. Hydrolysis

B. Anabolism

C. Hydrogenation

D. Dehydrogenation

Answer: A



798. Deficiency of calcium leads to

A. Anaemia

B. Tetany

C. Scurvy

D. Rickets

Answer: D

Watch Video Solution

799. The ultimate products of oxidation of most of the hydrogen and carbon in food - stuffs are

A. Water only

B. Carbondioxide only

C. Water and carbon dioxide

D. None of these

Answer: C

Watch Video Solution

800. Zinc is a constituent of

A. Enzymes

B. Insulin

C. Tissues

D. All are correct

Answer: D

Watch Video Solution

801. Which is involved in blood clotting

A. Fibrinogen

B. Pepsinogen

C. Trypsinogen

D. None





802. Deficiency of which metal ion causes anaemia

A. Zn

B. Fe

C. Mg

D. Na

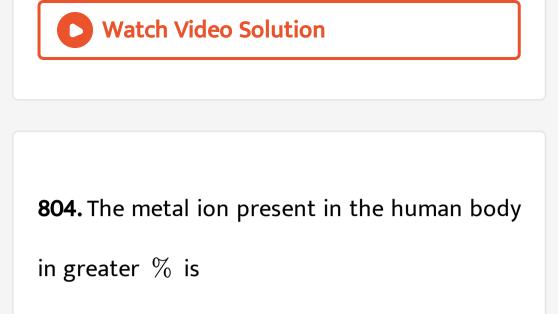




803. The metal ions present in body fluids are

- A. Sodium, Potassium, Calcium
- B. Sodium ,Calcium
- C. Potassium , Zinc
- D. Magnesium , Iron

Answer: A



- A. Ca
- B. Na
- C. K
- D. Fe

Answer: A





805. White blood cells act as

- A. As source of energy
- B. For blood clotting
- C. As defence against infection
- D. As a medium for oxygen transport from

lungs to tissues

Answer: C

806. Nucleoside involves the combination of

A. Sugar + base + H_3PO_4

B. Sugar + base

C. Sugar + acid

D. None

Answer: B

807. Water is important to living being because

- A. It is a compound of hydrogen and oxygen
- B. It can be obtained in pure form
- C. It is a good solvent and its boiling point

is moderately high

D. It is colourless liquid

Answer: C

808. A gene is a segment of a molecule of

A. DNA

B. m-RNA

C. t-RNA

D. Protein

Answer: A

809. Protein synthesis in living cells is also called

A. Transcription

B. Translation

C. Replication

D. Duplication

Answer: B

810. Which of the following gives maximum

energy in metabolic process

A. Proteins

B. Carbohydrates

C. Vitamins

D. Fats

Answer: D

811. The chemical change in a DNA molecule that leads to the synthesis of proteins with different amino acids sequence is called

A. Allergy

B. Mutation

C. Transcription

D. Metabolism

Answer: B

812. Which of the following is molecular disease ?

A. Allergy

B. Cancer

C. Measles

D. Sickle cell anaemia

Answer: D

813. The nutrient used in the body as a source of energy as a raw material for growth and repair is

A. Fat

B. Carbohydrates

C. Proteins

D. Vitamins

Answer: C

814. The intermediate compound in the

conversion of starch to glucose is :

A. Lactose

B. Maltose

C. Fructose

D. Sucrose

Answer: B

815. Molisch's test is used for :

A. Monosaccharides

B. Disaccharides

C. Polysaccharides

D. All

Answer: D



816. Number of possible isomers of glucose is :

A. 10

B. 14

C. 16

D. 20

Answer: C

Watch Video Solution

817. Glycogen on hydrolysis gives :

A. Starch

B. Amylopectin

C. Amylose

D. Glucose

Answer: D

Watch Video Solution

818. Carbohydrates are stored in the body as :

A. Sugars

B. Starch

C. Glucose

D. Glycogen

Answer: D



819. The enzyme that hydrolyses cellulose into

glucose is :

A. Invertase

B. Zymase

C. Lactase

D. Emulsion

Answer: D



820. Which of the following is a disaccharide:

A. Lactose

B. Starch

C. Cellulose

D. Fructose

Answer: A

Watch Video Solution

821. In fermentation by zymase, alcohol and CO_2 are obtained from :

A. Glucose

B. Invert sugar

C. Fructose

D. All

Answer: A

Watch Video Solution

822. Glycogen is :

A. Monosaccharides

B. Disaccharides

C. Trisaccharide

D. Polysaccharide

Answer: D



823. Which of the following are all disaccharides:

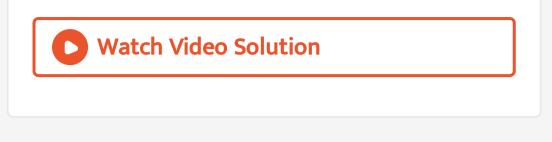
A. Maltose, sucrose, lactose

B. Maltose, lactose, glucose

C. Glycogen, lactose, sucrose

D. Starch, maltose, lactose





824. Monosaccharides containing ketonic

group are called :

A. Aldoses

B. Ketoses

C. Sucrose

D. Cellulose





825. Raffinose on hydrolysis forms :

A. Glucose

- **B.** Fructose
- C. Galactose
- D. All

Answer: D



826. Which of the following enzymes are used

to convert starch into alcohol :

A. Maltose, diastase

B. Invertase, Zymase

C. Diastase, maltase, zymase

D. Invertase, diastase, zymase

Answer: C





827. Glucose is used in :

A. Manufacture of vitamin C

B. As preservative

C. In the manufacture of alcohol

D. All

Answer: D

828. Glucose gives test with :

A. Tollen's reagent

B. Fehling's solution

C. Benedict's solution

D. All

Answer: D



829. Which is used to identify glucose :

A. Neutral ferric chloride

B. $CHCI_3 + KOH$ (alc.)

C. Ammoniacal $AgNO_3$

 $\mathsf{D.}\, C_2 H_5 ONa$

Answer: C

830. Acetone may be obtained from starch by

the action of :

A. Acid

B. Bacteria

C. Oxidising agent

D. None

Answer: B

831. How many atoms are there in pyranose ring:

A. 5

B. 3

C. 6

D. 7

Answer: C

832. Which does not show mutarotation :

A. Glucose

B. Fructose

C. Both (a) and (b)

D. Sucrose

Answer: D

833. Glucose reacts with acetic anhydride to from :

A. Monoacetate

B. Tetra acetate

C. Penta acetate

D. Hexa acetate

Answer: C

834. Which of the following monosaccharide is

pentose :

A. Glucose

B. Fructose

C. Arabinose

D. Galactose

Answer: C

835. Glucose contains :

- A. One-CHO group
- B. Five -OH groups

C. One primary alcoholic group and four

secondary alcohol groups

D. All are correct

Answer: D

836. Oligosaccharides contain ____ simple sugar units :

A. 2 to 10

B. 4 to 8

C. 6 to 12

D. 6 to 10

Answer: A

837. Monosaccharides usually contain :

- A. 3 to 8 carbon atoms
- B. 5 to 8 carbon atoms
- C. 2 to 10 carbon atoms
- D. 6 to 10 carbon atoms

Answer: A

838. Emil Fischer was awarded Nobel Prize for

his work on :

A. Sugars and purine synthesis

B. Ammonia discovery

C. Optical activity

D. Alkaloid synthesis

Answer: A

839. Maltose is made up of :

A. α-D glucose

B. α and β -D glucose

C. Glucose and fructose

D. Fructose only

Answer: A

840. Carbohydrates containing more than 10

simple units of sugar are called :

A. Monosaccharides

B. Disaccharides

C. Trisaccharide

D. Polysaccharide

Answer: D

841. Now carbohydrates are regarded as :

A. Aromatic compounds

B. Polyfunctional compounds

C. Alicyclic compounds

D. Polysaccharide

Answer: B

842. Glucose on reduction with $Na \,/\, Hg$ and

water gives :

A. Sorbitol

B. Fructose

C. Saccharic acid

D. Gluconic acid

Answer: A

843. The important monosaccharides are :

A. Aldoses

B. Ketoses

C. Aldoses and ketoses

D. None

Answer: C

844. Which of the following is oligosaccharide

A. Sucrose

:

B. Maltose

C. Lactase

D. All

Answer: D

845. Which is polysaccharide:

A. Nylon

B. Polyethene

C. Glucose

D. Cellulose

Answer: D

846. Monosaccharides containing aldehyde

group are called :

A. Aldoses

B. Ketoses

C. Polysaccharides

D. Disaccharides

Answer: A

847. The colour of the precipitate formed when a reducing sugar is heated with Fehling's solution is :

A. Brown

B. Red

C. Blue

D. Green

Answer: B

848. Glucose and cane sugar can be distinguished by:

A. Fehling's solution

B. Baeyer's reagent

C. Molisch's test

D. lodine solution

Answer: A

849. A certain compound gives negative test with ninhydrin, but positive test with Benedict.s solution. The compound is :

A. Protein

B. Monosaccharide

C. Lipid

D. Amino acid

Answer: B

850. Epimers are pair of diastereoisomeric aldoses which differ only in configuration at position :



- $\mathsf{B.}\,C_2$
- $\mathsf{C.}\,C_4$
- D. C_3

Answer: B



851. Which of the following sugars is present

in genetic factor DNA molecule :

A. Glucose

B. Maltose

C. Ribose

D. Deoxyribose

Answer: D

852. Cellulose, starch and glycogen are the polysaccharides having ____ monosaccharide unit:

A. Glucose

B. Ribose

C. Fructose

D. Pentose

Answer: A

853. Colour of osazone of glucose is :

A. Red

B. Brown

C. Yellow

D. Orange

Answer: C



854. Fehling.s solution and Benedict.s solution

are reduced by glucose to form :

A. CuO

 $\mathsf{B.}\,Cu_2O$

 $\mathsf{C}. Cu(OH)_2$

D. Cu

Answer: B

855. When glucose is heated with nitric acid,

the product is :

A. Gluconic acid

B. Glucaric acid

C. Glycolic acid

D. Oxalic acid

Answer: B

856. Starch is made up of:

- A. Glucose and fructose
- B. Amylose and amylopectin
- C. Amylose and glycogen
- D. Amylopectin and glycogen

Answer: B

857. Which of the following carbohydrate is

synthesised by nature on the largest scale :

A. Glucose

B. Fructose

C. Lactase

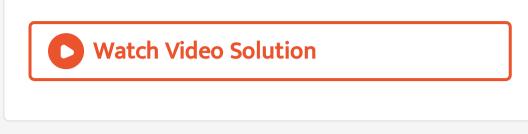
D. Cellulose

Answer: D

858. Cane sugar is made of :

A. 5	membered	glucose	ring	and	5
membered fructose ring					
B. 6	membered	glucose	ring	and	6
membered fructose ring					
C. 6	membered	glucose	ring	and	5
membered fructose ring					
D. 6	membered	glucose	ring	and	6
membered fructose ring					





859. Glycogen and amylopectin have :

- A. Same structure
- B. Similar structure but differ in branching

of glucose chain

C. Similar structure but differ in their

solubility in water

D. Similar structure but they are stored in

different parts of the body

Answer: B

Watch Video Solution

860. The carbon chain in fructose is identified

by converting in into:

A. α-methyl hexane

B. Cyclohexane

C. n-hexane

D. α -methyl caproic acid

Answer: C

Watch Video Solution

861. Formation of amylene oxide ring in glucose is an indication that ring in glucose is at:

A. C_1 and C_5

B. C_2 and C_5

C. C_3 and C_6

D. C_2 and C_4

Answer: A

Watch Video Solution

862. The polysaccharide used in the manufacture of paper is:

A. Cellulose

B. Starch

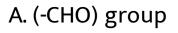
C. Glucose

D. Sucrose

Answer: A

Watch Video Solution

863. Methylation of glucose with dimethyl sulphate indicates the presence of following group in glucose :





- C. (-OH) group
- D. None

Answer: C



864. Which of the following elements are necessary for maintaining fluid balance in the body:

- A. Calcium and magnesium
- B. Potassium and sodium
- C. Iron and magnesium
- D. None of the above

Answer: B

Watch Video Solution

865. The store house for all biological information is :

A. RNA

B. m-RNA

C. DNA

D. None of the above

Answer: C

Watch Video Solution

866. What is not true for enzymes :

A. They are powerful biocatalysts

B. They are all proteins

C. They are highly specific in their action

D. They do not lose activity on heating

Answer: D

Watch Video Solution

867. Which one is the complementary base of adenine in one strand to that in the other strand of DNA:

A. Cytosine

- B. Guanine
- C. Uracil
- D. Thymine

Answer: D



868. Which one is the complementary base in

RNA strand to the adenine base in DNA during

protein synthesis:

A. Adenine

- B. Guanine
- C. Uracil
- D. Cytosine

Answer: D



869. The enzyme that hydrolyses casein of milk

into paracasein is:

A. Renoline

- B. Rennin
- C. Replication
- D. Renil

Answer: B



870. Which of the following is not a pyrimidine

base :

A. Thymine

- B. Guanine
- C. Cytosine
- D. Uracil

Answer: B



871. The process of formation of RNA from

DNA is known as :

A. Translation

- **B.** Transcription
- C. Replication
- D. Mutation

Answer: A

Watch Video Solution

872. Ribose sugar is a component of :

A. DNA

B. RNA

C. Glucose

D. Wax

Answer: B

Watch Video Solution

873. The enzyme present in saliva is :

A. Pepsin

B. Peptidase

C. Lipase

D. Ptyalin

Answer: D



874. Antibodies are

A. Carbohydrates

B. Proteins

C. Phospholipids

D. Lipids

Answer: B

Watch Video Solution

875. Pancreatic juice contains the enzyme :

A. Zymase

B. Invertase

C. Diastase

D. Lipase





876. Which of the following statements about enzymes is incorrect :

A. The catalytic action of an enzyme is not specific

B. An enzymatic reaction is highly sensitive

to temperature

C. The catalytic action of enzymes is due to

their capacity to lower the energy of

activation of a particular reaction

D. None of these

Answer: A

Watch Video Solution

877. Which of the following is not present in

RNA :

A. Ribose

B. Uracil

C. Thymine

D. Phosphate

Answer: C

Watch Video Solution

878. Deoxyribonucleic acid (DNA) consists of

the following units:

- A. Peptides
- B. Glucosides
- C. Nucleotides
- D. Deoxyribose

Answer: C

Watch Video Solution

879. The sugar part of DNA is :

A. Glucose

B. Sorbose

C. Ribose

D. Deoxyribose

Answer: D

Watch Video Solution

880. Redness of blood is because of the presence of :

A. Iron in haeme pigment

B. Haemoglobin

C. Copper in haeme pigment

D. All

Answer: A

Watch Video Solution

881. Which of the following compounds is responsible for the transmission of heredity characters:

A. RNA

B. DNA

C. Glucose

D. Haemoglobin

Answer: B

Watch Video Solution

882. With which one of the pollutant gases in

air, haemoglobin of blood undergoes

causing death. The gas is :

A. Carbon monoxide

B. Carbon dioxide

C. Sulphur dioxide

D. Ozone

Answer: A

883. A chemical substance acts as the currency

of energy metabolism in a cell. It is :

A. Adenosine triphosphate

B. Adenosine diphosphate

C. Adenosine monophosphate

D. Glucose

Answer: A

884. Which statement is not correct for an enzyme :

A. It acts as a biocatalyst

B. Its aqueous solution is colloidal

C. It can catalyse any chemical reaction

D. Its catalytic efficiency is temperature

dependent

Answer: C

885. An antigen develops antibodies which protect the body from their harmful effects. The antibodies are :

A. Immunoglobulins

B. Phospholipids

C. Albumins

D. Lymphocytes

Answer: A

886. In blood, the transport of oxygen from lungs to tissues is carried out by :

A. White blood cells (leukocytes)

B. Red blood cells (erythrocytes)

C. Fibrinogen

D. Globulins

Answer: B

887. DNA molecule consists of units of:

A. Base-sugar

- B. Base-sugar-phosphate
- C. Base-phosphate
- D. None of these

Answer: B



888. The antibodies necessary to protect new

born babies from infection are derived from:

A. Cow's milk

B. Pasteurised milk

C. Mother's milk

D. Honey

Answer: C

889. The red colouring matter of blood which

transports oxygen contains an element in a

system of rings. The element is :

A. Iron

B. Magnesium

C. Cobalt

D. Calcium

Answer: A

890. Which of the following statements is incorrect?

A. Two polynucleotide chains pointing in

opposite directions are coiled to from a

double helix

- B. Both helixes are right handed
- C. The helixes have ten nucleotides in each

turn

D. The two chains are not complementary

to each other

Answer: D



891. Oxygen, necessary for life on earth was formed in atmosphere as a result of :

A. Eradication of ozone

B. Photosynthesis

C. Electric discharge on water

D. None of the above





892. Rice has deficiency of the essential amino acid:

A. Alanine

B. Glycine

C. Lysine

D. Leucine

Answer: C



893. Which of the following base is linked is one strand of DNA to cytosine of the other strand by hydrogen bonds :

A. Guanine

B. Adenine

C. Thymine

D. Uracil

Answer: C



894. The simple prokaryotic cells evolved when life began on earth. Which of the following nutrients used for evolving more complex eukaryotic cells:

A. CO_2

B. N_2

C. CO_2 and N_2

 $\mathsf{D}.\,O_2$

Answer: C

Watch Video Solution

895. Which parts of amino acid molecules are linked through hydrogen bonds in the secondary structure of proteins :

A.-SH group

B. (-COOH)group

C. C=O and -NH groups

D. Alkyl group

Answer: C

:



896. The structure of RNA molecule consists of

A. Double helix

B. Single helix

C. Single strand

D. Branched chain

Answer: C



897. The main point of difference between DNA

and RNA is :

A. Presence of thymine is DNA and RNA

B. Presence of deoxyribose and thymine in

DNA, ribose and uracil in RNA

C. Presence of ribose and thymine in DNA,

deoxyribose and uracil in RNA

D. Presence of deoxyribose in DNA and

ribose in RNA

Answer: B

898. Insulin has 51 amino acids in two polypeptide chains which are linked by :

A. One sulphide bond

B. One disulphide bond

C. Two disulphide bonds

D. Three disulphide

Answer: C

899. The function of DNA is :

A. Protein synthesis

B. Self replication

C. Store of hereditary information

D. All of the above

Answer: D

Watch Video Solution

900. The purine base present in DNA is :

A. Adenine

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

Answer: A



901. Which of the following is not present in nucleotide :

A. Guanine

- B. Cytosine
- C. Adenine
- D. Thyroxine

Answer: D



902. The function of enzymes in the living system is to :

- A. Transport oxygen
- B. Provide immunity
- C. Catalyse Biochemical reaction
- D. Provide energy

Answer: C



903. DNA has deoxyribose and base and third

compound is :

A. Phosphoric acid

B. Ribose

C. Adenine

D. Thymine

Answer: A

Watch Video Solution

904. Which of the following elements is responsible for oxidation for water to O_2 in the biological process?

A. Fe

B. Mn

C. Cu

D. Mo

Answer: A

Watch Video Solution

905. Enzymes are :

A. Catalysts

B. Fatty acids

C. Proteins

D. Carbohydrates

Answer: C

Watch Video Solution

906. Which one of the following is not present

in RNA?

A. Thymine

B. Ribose

C. Uracil

D. Phosphate

Answer: A

Watch Video Solution

907. The disease .diabetes mellitus. is caused

by the deficiency of :

A. Iodine

B. Insulin

C. Phenyl alanine hydroxylase

D. Lysine

Answer: B

Watch Video Solution

908. The hormone used as an oral contraceptive is :

A. Aldosterone

B. Cortisone

C. Progesterone

D. Testosterone

Answer: C

Watch Video Solution

909. Bleeding gums are caused by deficiency of

A. Thiamine

•

B. Ascorbic acid

C. Folic acid

D. Vitamin E

Answer: B

Watch Video Solution

910. The hormone insulin is a secretion of the

organ:

A. Ovary

B. Testes

C. Adrenal cortex

D. Pancreas

Answer: D

Watch Video Solution

911. Increased blood pressure may be caused

by excess secretion of :

A. Thyroxin

B. Testosterone

C. Estradiol

D. Adrenalin

Answer: D

Watch Video Solution

912. Biological catalyst (enzymes) belong to :

A. Polysaccharides

B. Synthetic polymers

C. Polypeptides

D. Poly nitrogen heterocycles

Answer: C

Watch Video Solution

913. Which is not member of vitamin B complex group :

A. Retinol

B. Thiamine

C. Riboflavin

D. Pyridoxine

Answer: A



914. Which of the following nutrients is increased on sprouting the pulses such as sprouted black gram or bengal gram

A. Vitamin A

B. Vitamin B

C. Vitamin C

D. Iron

Answer: D

View Text Solution

915. The science of using microorganisms for

the beneficial effects in industries is called:

A. Biotechnology

B. Genetic engineering

C. Enzymology

D. Microbiology

Answer: B

Watch Video Solution

916. All except one may be caused by a virus:

A. Poliomyelitis

B. Influenza

C. Malaria

D. Small pox

Answer: C

Watch Video Solution

917. The chief constituents of biological

membranes are:

A. Proteins

B. Waxes

C. Triglycerides

D. phospholipids

Answer: C



918. A disease can often be transmitted by

polluted water is:

A. Rabies

B. Typhoid

C. Common cold

D. Malaria

Answer: B



919. Most viruses are composed of:

A. Proteins

B. Proteins and nucleic acid

C. Cellulose and fat

D. fats and proteins

Answer: B

Watch Video Solution

920. Deficiency of sodium and potassium causes:

A. Muscular cramps

B. Headache

C. Diarrhoea

D. All are correct

Answer: D

Watch Video Solution

921. Progesterone is a:

A. Steroid hormone

B. Proteins hormone

C. Vitamin

D. Alkaloid





922. Which carbohydrate cannot be

metabolised by human being:

A. Maltose

B. Cellulose

C. Amylose

D. Amylopectin





923. Saliva contains:

A. Amylases

B. Bite

C. Vitamins

D. Trypsin

Answer: A



924. Bile juice aids in the digestion and absorption of fats because it contains:

A. Bile pigment

B. Lipase

C. Cholesterol

D. Bile salts

Answer: D





925. which component of the typical birth control pill is responsible for regulating the menstrual cycle:

A. Androgen

B. Estrogen

C. Progestin

D. Oxytocin







926. The human body does not produce:

A. Enzymes

B. Vitamins

C. Proteins

D. Oxytocin

Answer: B

927. OXY-haemoglobin contains:

A. Less oxygen than haemoglobin

B. More oxygen than haemoglobin

C. Contains more carbon dioxide

D. Contains less carbon dioxide

Answer: B

928. Glucose is stored in the liver in the polysaccharide form called:

A. Starch

B. Amylopectin

C. Cellulose

D. Glycogen

Answer: D

929. The digestion of starch by the enzyme

amylase occurs in:

A. Stomach

B. Liver

C. Muscles

D. Small intestine

Answer: D

930. Which of the following is a female sex

hormone:

A. Estrogen

B. Estradiol

C. Progesterone

D. All of the above

Answer: D

931. Emulsification of fat is brought about by:

A. Bile pigment

B. Bile salts

C. Hydrochloric acid

D. Pancreatic juice

Answer: B

932. Disease caused by under secretion of

adrenal cortex is:

A. Cretinism

B. Dwarfism

C. Sterility

D. Addison's disease

Answer: D

933. All digestive enzymes are:

A. Ligases

B. Oxidases

C. transferases

D. Hydrolases

Answer: D



934. Cellophane is made from :

A. Cellulose

- B. Phenol
- C. Gum
- D. Petroleum

Answer: A

Watch Video Solution

935. Monosaccharides are :

A. Sweet

B. Sour

C. Tasteless

D. Offensive

Answer: A

Watch Video Solution

936. An example of disaccharide made up of

two units of the same monosaccharides is :

A. Maltose

B. Sucrose

C. Lactose

D. None

Answer: A

Watch Video Solution

937. Ring structure of glucose is due to formation of hemiacetal and ring formation between :

A. C_1 and C_5

B. C_1 and C_4

C. C_1 and C_3

D. C_3 and C_4

Answer: A



938. The charring product formed when $C_6H_{12}O_6$ is heated with conc. H_2SO_4 is due to

- A. Oxidation
- **B. Reduction**
- C. Dehydration
- D. Dehydrogenation

Answer: C



939. To become a carbohydrate, a compound

must contain atleast :

A. 6 carbons

- B. 3 carbons
- C. 4 carbons
- D. 2 carbons

Answer: B



940. Which of the following gives reddish brown precipitate with dilute solution of resorcinol in dilute HCI:

A. Glucose

B. Fructose

C. Lactose

D. Maltose

Answer: B

Watch Video Solution

941. Lactose on hydrolysis yields :

A. Two glucose molecules

B. Two galactose molecule

C. A galactose and fructose molecule

D. A galactose and a glucose molecule

Answer: D

Watch Video Solution

942. Which statement about ribose is incorrect :

A. A polyhydroxy compound

B. An aldehyde sugar

C. Has six carbon atoms

D. Exhibits optical activity

Answer: C

Watch Video Solution

943. The number of atoms in the ring structure of pyranose is :









Answer: A

Watch Video Solution

944. Main constituents of the cell walls of plants is :

A. Cellulose

B. Glycogen

C. Lactose

D. Chlorophyll

Answer: A

Watch Video Solution

945. Dextrins $(C_6H_{10}O_5)$ are used in :

A. Making adhesive

B. Confectionary

C. Sizing paper

D. All

Answer: D



946. Animal starch is the name given for :

A. Glycogens

B. Lactogens

C. Cellulose

D. None

Answer: A

Watch Video Solution

947. Cellulose trinitrate is used in preparation of :

A. Food

B. Explosives

C. Rayon

D. None

Answer: B

Watch Video Solution

948. Cellulose is a linear polymer of :

A. α glucose

B. β glucose

C. α fructose

D. None





949. Glycogen is a branched polymer of :

A. α glucose

B. β glucose

C. α fructose

D. None

Answer: A



950. Gums are :

A. Polysaccharides of more than one type

of monosaccharides

B. Used as thickening agent

C. Used for improvement of texture in food

industry

D. All





951. Which are called biomolecules :

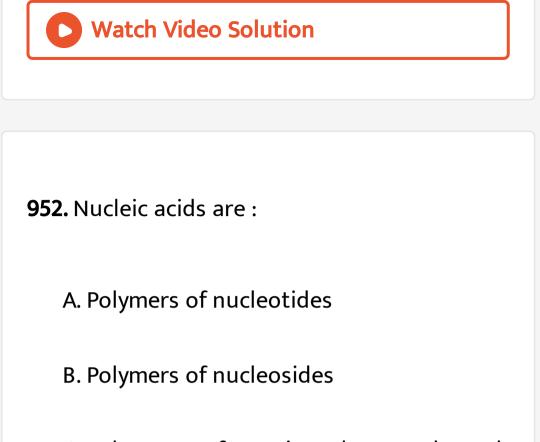
A. Carbohydrate

B. Protein

C. Lipids

D. All

Answer: D



C. Polymers of purine bases through

phosphate ester bonds

D. Phosphate ester bonds







953. The process of respiration in absence of

oxygen is called :

A. Metabolic

B. Aerobic

C. Anaerobic

D. Glycolysis

Answer: C

954. Which of the following body parts is not composed of structural proteins :

A. Muscle

B. Nails

C. Bones

D. Skin and bone matrix

Answer: B

955. One mole of glucose on respiration produces :

A. 36 mole of ATP

B. 34 mole of ATP

C. 40 mole of ATP

D. 38 mole of ATP

Answer: A

contains iodine :

A. Adrenalin

B. Testosterone

C. Thyroxine

D. Insulin

Answer: C

957. The ph of fluid in the stomach is :

A. 2.0

 $\mathsf{B.}\,7.0$

C. 4.2

D. 9.2

Answer: A



958. The purine bases present in both DNA and RNA are :

A. Guanine and adenine

B. Guanine and uracil

C. Adenine and thymine

D. Cytosine and uracil

Answer: A

959. Bases common to DNA and RNA are :

A. Adenine, cytosine ,uracil

B. Guanine , adenine , cytosine

C. Guanine, uracil, thymine

D. Adenine , thymine , guanine

Answer: B



960. Nucleic acids contain :

- A. 4 purine bases
- B. 4 pyrimidine bases
- C. 2 purine bases and 3 pyrimidine bases
- D. 4 pyrimidine bases and one purine base

Answer: C

Watch Video Solution

961. Adenosine is an example of :

A. Nucleotide

B. Nucleoside

C. Purine base

D. Pyrimidine base

Answer: B

Watch Video Solution

962. Which of the following is a protein hormone?

A. Insulin

B. Oxytocin

C. BOTH (A) AND (B)

D. None

Answer: C

Watch Video Solution

963. The chemical messenger produced in the

endocrine (duct-less) glands are grouped as:

A. Vitamins

B. Lipids

C. Antibiotics

D. Hormones

Answer: D

Watch Video Solution

964. The function of DNA is :

A. To synthesise RNA

B. To synthesise the necessary proteins

C. To carry the hereditary characteristics

from generation to generation

D. All are correct

Answer: D

Watch Video Solution

965. Which of the following base is found only

in RNA and not in DNA :

A. Thymine

B. Uracil

C. Adenine

D. Guanine

Answer: B

Watch Video Solution

966. The element present in traces in insulin is

:

B. Cobalt

C. Zin

D. Magnesium

Answer: C

Watch Video Solution

967. The base present only in RNA and not in

DNA is :

A. Uracil

B. Cytosine

C. Thymine

D. Guanine

Answer: A

Watch Video Solution

968. The hormone which maintains blood sugar level is :

A. Oxytocin

B. Haemoglobin

C. Insulin

D. Ptylin

Answer: C

Watch Video Solution

969. A compound which catalyses a chemical reaction in a living organism is called a (n) :

A. Carbohydrate

B. Enzyme

C. Lipid

D. Vitamin

Answer: B

Watch Video Solution

970. Hormones function as :

A. Chemical messengers

B. Coenzymes

C. Provitamins

D. All

Answer: A



971. Enzyme trypsin converts:

A. Amino acids into proteins

B. Glucose into glycogens

C. Starch into sugar

D. Proteins into amino acids

Answer: D

Watch Video Solution

972. The enzyme carbonic anhydrase catalyses the change :

A. Carbonic acid to H_2O and CO_2

B. Lactose to glucose and galactose

C. Maltose to glucose

D. None

Answer: A

:

Watch Video Solution

973. CO- factors (non- protein prosthetic groups) used to bond conjugated proteins are

A. Carbohydrates

B. Phosphoric acid

C. Iron pigments

D. All the correct

Answer: D

Watch Video Solution

974. Which of the following is proteolytic

enzyme:

A. Insulin

B. Diastase

C. Pepsin

D. Adenine

Answer: C



975. Photosynthesis in plants is brought about

by chlorophyll. It involves :

A. Conversion of chemical energy into

radiant energy

B. Conversion of chemical energy into

mechanical energy

C. Conversion of solar energy into chemical

energy

D. Conversion of mechanical energy into

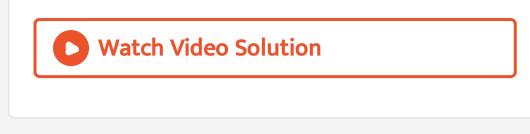
solar energy

Answer: C

976. In DNA the complementary bases are :

A. Adenine and thymine , guanine and cytosine B. Uracil and adenine , cytosine and guanine C. Adenine and guanine, thymine and cytosine D. Adenine and thymine , guanine and uracil





977. Mutations arise due to :

A. Infection by microorganisms

- B. Abrupt changes in genes
- C. Hybridisation
- D. Dominant character of one of the

parents





978. Sudden hereditary change is called :

A. Meiosis

B. Mitosis

C. Mutation

D. None

Answer: C



979. DNA dictates synthesis of :

A. Proteins

B. Lipids

C. Carbohydrates

D. Glucose

Answer: A

980. The set of reaction in a cell which help in degradation of macromolecules is called :

A. Metabolism

B. Anabolism

C. Catabolism

D. All of the above

Answer: C

981. Which of the following is not a biotechnology product :

A. Interferon

B. Human insulin hormone

C. Vaccines

D. Cortisone

Answer: D

982. Respiration ultimately results in :

A. $CO_2 + O_2$

B. Glucose + O_2

C. Glucose + CO_2

D. $CO_2N + H_2O$

Answer: D

983. Biological reactions associated with positive ΔG values are called :

A. Exergonic

B. Endergonic

C. Exothermic

D. Endothermic

Answer: B

984. The process photosynthesis cannot occur

in the absence of :

A. Chlorophyll

B. Oxygen

C. Catalyst

D. None

Answer: A

985. During respiration , food is oxidised to carbon dioxide in the presence of oxygen . This process is called :

A. Aerobic

B. Anaerobic

C. Anabolism

D. Catabolism

Answer: A

986. Degradation of one mole of glucose provides :

A. 36 mole of ATP

B. 10 mole of ATP

C. 315 mole of ATP

D. 3 mole of ATP

Answer: A

987. Interferon is a product of biotechnology

and is used against :

A. Viral diseases

B. Diabetes

C. Sickle cell anaemia

D. Haemorrhage

Answer: A

988. Blood clots due to :

A. RBC

B. WBC

C. Platelets

D. Globulins

Answer: C

989. Miller synthesised simple amino acids from:

A. H_2, NH_3, CH_4, H_2O

 $\mathsf{B}.\, H_2,\, O_2,\, N_2,\, H_2 O$

 $\mathsf{C}.\,CH_4,O_2,N_2,SO_2$

 $\mathsf{D}.\, NH_3, O_2, CO_2, HCN$

Answer: A

990. A codon on the mRNA has :

A. One base

B. Two base

C. Three base

D. Variable number of bases

Answer: C

991. Which of the following is an example of

zwitterion :

A. Urea

B. Glycine hydrochloride

C. Ammonium acetate

D. α -alanine

Answer: D

992. Among the latest discovery in cytology is :

A. Respiration

B. Genetic code

C. Enzyme

D. None

Answer: B



993. An example of natural biopolymer is :

A. Teflon

B. Nylon-6,6

C. Rubber

D. DNA

Answer: D

Watch Video Solution

994. Enzymes, in the living systems:

A. Provide energy

B. Provide immunity

C. Transport oxygen

D. Catalysed biochemical process

Answer: D

Watch Video Solution

995. The pH of the blood does not appreciably

change by small addition of an acid or a base

because blood :

A. Contains serum protein which acts as a

butter

B. Contains iron as a part of the molecule

C. Can be coagulated easily

D. Is a body fluid

Answer: A

Watch Video Solution

996. Enzymes :

temperature

B. Consists of nucleic acids

C. Carbohydrates

D. Have all these properties

Answer: A

Watch Video Solution

997. In nucleic acids, the sequence is :

- A. Phosphate-sugar-base
- B. Sugar-base-phosphate
- C. Base-sugar-phosphate
- D. Base-phosphate-sugar

Answer: C