doubtnut
India's Number 1 Education App

CHEMISTRY

BOOKS - FULL MARKS CHEMISTRY (TAMIL ENGLISH)

BIOMOLECULES

Textbook Evaluation Choose The Correct Answer

1. Which of the following rotates the palne polarized light to twards left ?

A. D(+) Glucose

B. L(+) Glucose

C. D(-) Fructose

D. D(-) Galactose

Answer: C

View Text Solution

2. The correct corresponding order of names of four aldoes with configuration given below Respectively is ,

A. L- Erythrose, L - Threose , L- Erythrose , D-Threose

B. D - Threose , D - Erythrose , L - Threose , D- Erythose

C. L - Erythrose , L - Threose , D - Erythrose , D - Threose

D. D - Erythrose , D - Throese , L - Erythrose , L - Threose

Answer: D

View Text Solution

3. Which one given below is a non - reducing sugar ?

A. Glucose

B. Sucrose

C. maltose

D. Lactose

Answer: B

View Text Solution

4. Glucose (HCN) Product (hydrolysis) Product (HI+ Heat) A, the compound A is ..... .

A. Heptanoic acid

B. 2-Iodohexane

C. Heptane

D. Heptanol

Answer: A

View Text Solution

5. Assertion : A solution of surcose of sucrose in water is dextrorotatory. But on hydrolysis in the presence of little hydrochloric acid, it becomes levorotatory.

Reason : Sucrose hydrolysis gives unequal amounts of glucose and fructose . As a result of this change in sign of rotation is observed .

A. If both accretion and reason are true and reason is the correct explanation of assertion .

B. If both assertion and reason are true but reason is not the correct explanation of assertion

C. If assertion is true but reason is false

D. If both assertion and reason are false

Answer: A

View Text Solution

6. The central dogma of molecular genetics states that the genetic information flows from ..... .

A. Amino acids Protein DNA

B. DNA Carbohydrates Proteins

C. DNA RNA Proteins

D. DNA RNA Carbohydrates

Answer: C

View Text Solution

7. In a protein , various amino acids liked together by .....

A. Peptide bond

B. Dative bond

C. α - Glycosidic bond

D. β - Glycosidic bond

Answer: A

View Text Solution

8. Among the following the achiral amion acids is .....

A. 2 - ethylalanime

B. 2-methylglycine

C. 2-hydroxymethylserine

D. Tryptophan

Answer: C

View Text Solution

9. The correct statement regarding RNA and DNA respectively is .....

A. the sugar comopnent in RNA is an arabinose and the sugar componemt in DNA is ribose

B. the sugar component in RNA is 2 - deoxyribose and the sugar component in DNA is arabinose

C. the sugar component in RNA is an arabinose and the sugar component in DNA is 2 - deoxyribose

D. the sugar component in RNA is ribose and the sugar component in DNA is 2 - deoxyribose

Answer: D

View Text Solution

10. In aqueous solution of amino aicds mostly exists in ,

A. $NH_2 - CH(R) - COOH$

B. $NH_2 - CH(R) - COO$

C. $H_3N^+ - CH(R) - COOH$

D. $H_3N^+ - CH(R) - COO^-$

Answer: D

View Text Solution

11. Which of the folloiwng is not produced by body ?

A. DNA

B. Enzymes

C. Hormones

D. Vitamins

Answer: D

View Text Solution

12. The number of sp2 and sp3 hybridised carbon in furctose are respectively ..... .

A. 1 and 4

B. 4 and 2

C. 5 and 1

D. 1 and 5

Answer: D

View Text Solution

13. Vitamin B2 is also known as

A. Riboflavin

B. Thiamine

C. Nicotinamide

D. Pyridoxine

Answer: A

View Text Solution

14. The pyrimidine base present in DNA are ..... .

A. Cytosine and Adenine

B. Cytosine and Guanine

C. Cytosine and Thiamine

D. Cytosine and Uracil

Answer: C

View Text Solution

15. Among the following L - serine is ..... .

A. $H_2N - CH_2 - CH_2 - COOH$

B. $CH_3 - \underset{\underset{OH}{|}}{CH} - \underset{\underset{NH_2}{|}}{C} - COOH$

C. 

D. 

Answer: C

View Text Solution

16. The secondary structure of a protein refers to ..... .

A. fixed configuation of the polypeptide backbone

B. hydrophbic interaction

C. sequence of α - amino acids

D. α - helical backbones

Answer: D

View Text Solution

17. Which of the following vitamins is water soluble ?

A. Vitamin E

B. Vitamin K

C. Vitamin A

D. Vitamin B

Answer: B

View Text Solution

18. Complete hydrolysis of cellulose gives ..... .

A. L - Glucose

B. D - Fructose

C. D- Ribose

D. D- Glucose

Answer: D

View Text Solution

19. Which of the following statement is correct ?

A. Ovalbum is a simple food reserve in egg - white

B. Blood proteins thrombin and fibrinogen are involved in blood clotting

C. Denaturation makes protein more active

D. Insulin maintains the sugar level of in the human body

Answer: D

View Text Solution

20. Glucose is an aldose . Which one of the following reactions reactions is not expected with glucose ?

A. It does not form oxime

B. It does not react with Grignard reagent

C. It does not form oszones

D. It does not reduce tollens reagent

Answer: B

View Text Solution

21. If one strand of the DNA has the sequence 'ATGCTTGA' ,then the sequence of complementary strand would be ..... .

A. Fat

B. Steroid

C. Protein

D. Carbohydrates

Answer: C

View Text Solution

22. Insulin, a hormone chemically is ....

A. TACGAACT

B. TCCGAACT

C. TACGTACT

D. TACGRAGT

Answer: A

View Text Solution

23. $\alpha - D$ (+) Glucose and $\beta - D$ (+) glucose are ..... .

A. Epimers

B. Anomers

C. Enantiomers

D. Conformational isomers

Answer: B

View Text Solution

24. Which of the following are epimers ?

A. D(+) Glucose and D(+) - Galactose

B. D(+) - Glucose and D(+) - Mannose

C. Neither (a) nor (b)

D. Both (a) and (b)

Answer: D

View Text Solution

25. Which of the following amino acids are achiral ?

A. Alanine

B. Leucine

C. Proline

D. Glycine

Answer: A

View Text Solution

Textbook Evaluation Answer The Following Questions

1. What type of linkages hold together monomers of DNA ?

View Text Solution

2. Give the differences between primary and secondary structure of proteins .

View Text Solution

3. Name the Vitamins whose deficiency cause (i) rickets (ii) scurvy .

View Text Solution

4. Write the Z witter ion structure of alanine.

View Text Solution

5. Give any three difference between DNA and RNA .

View Text Solution

6. Write a short note on peptide bond.

View Text Solution

7. Give two difference between Hormones and vitamins .

View Text Solution

8. Write a note on denaturation of proteins .

View Text Solution

9. What are reducing and non - reducing sugars ?

View Text Solution

10. Why carbohydrates are generally optically active ?

View Text Solution

11. Classify the following into monosacharides , oligosaccharides and polysaccharides .

(i)Strach (ii) fructose (iii) surcose (iv) lactose (v) maltose .

View Text Solution

12. How are vitamins classified ?

View Text Solution

13. What are hormones ? Give examples.

View Text Solution

14. Write the structure all possible dipeptides which can be obtained from glycine and alanine .

View Text Solution

15. Define enzymes .

View Text Solution

16. Write the structure of $-D(+)$ glucopranose .

View Text Solution

17. What are different types of RNA which or found in cell ?

View Text Solution

18. Write a note on formation of - helix.

View Text Solution

19. What are the functions of lipids is living organism ?

View Text Solution

20. Is the following sugar , D - sugar or L - sugar ?

View Text Solution

Additional Questions Choose The Best Answer

1. Which of the following is the most abundant organic compounds is every living organis, ?

A. Fats

B. Proteins

C. Carbohydrates

D. Hormones

Answer: D

View Text Solution

2. What is the general chemical name of carbohydrates ?

A. Poly hydroxy aldehyde or ketones

B. Poly hydroxy esters

C. Poly amino acids

D. Poly carboxylic estes.

Answer: A

View Text Solution

3. Which process in utilized in the synthesis of carbohydrates in green plants ?

A. Oxidation

B. Redox reaction

C. Photosythesis

D. Reduction

Answer: C

View Text Solution

4. Which of the following compounds are optically active ?

A. Glycine

B. Carbohydrates

C. Ethanol

D. Meso tartaric acid

Answer: B

View Text Solution

5. Which of the following is optically inactive ?

A. 2-butanol

B. Glyceraldehyde

C. Glucose

D. Meso tartaric acid

Answer: D

View Text Solution

6. How many isomers are possible for glucose that have 4 asymmetic carbon atoms ?

A. 8 isomers

B. 16 isomers

C. 2 isomers

D. 4 isomers

Answer: B

View Text Solution

7. How many asymmetric carbon atoms are in glucose ?

A. 4

B. 3

C. 2

D. 1

Answer: A

View Text Solution

8. Which of the following rotates the plane polarised light in clockwise direction ?

A. L(-) Glucose

B. D(glucose)

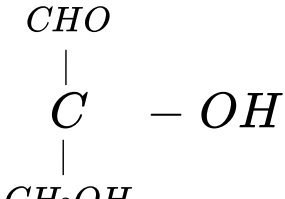
C. L - fructose

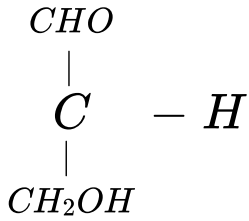
D. L - Glyceraldehyde

Answer: B

View Text Solution

9. Which one of the following is levorotatory ?

A. 

B. 

C. $H - \underset{\underset{COOH}{|}}{\overset{\overset{CH_3}{|}}{C}} - OH$

D. 

Answer: B

View Text Solution

10. Which one of the following is not monosaccharide ?

A. Fructose

B. Ribose

C. Erythrose

D. Maltose

Answer: D

View Text Solution

11. Which one of the following is a monossacharide ?

A. Glucose

B. Maltose

C. Surcose

D. Cellulose

Answer: A

View Text Solution

12. The number of carbon atoms present in human blood ?

A. 6

B. 4

C. 3

D. 5

Answer: B

View Text Solution

13. What is the amount of glucose present in human blood ?

A. 150 mg/dl

B. 50 mg /dl

C. 100 mg /dl

D. 1000 mg / dl

Answer: C

View Text Solution

14. Which one of the following is called blood sugar ?

A. Erythose

B. Ribose

C. Ribulose

D. Glucose

Answer: D

View Text Solution

15. Acid hydrolysis of starch at high temperature and pressure produces..... .

A. Fructose

B. glucose

C. both fructose and glucose

D. Maltose

Answer: B

View Text Solution

16. The other name of glucose is ..... .

A. dextrose

B. blood sugar

C. aldohexoe

D. all the above

Answer: D

View Text Solution

17. Which one is formed as major product when glucose is on reduction with conecentrated HI and red P at 373 K ?

A. 2-iodohexane

B. 3-iodohexane

C. n - hexane

D. 4-iodohexane

Answer: C

View Text Solution

18. Which one of the product is formed when glucose reacts with bromine water ?

A. n-hexane

B. Gluconic acid

C. Saccharic acid

D. Hexanoic acid

Answer: B

View Text Solution

19. Which one of the following is formed when glucose react with Conc. HNO_3 ?

A. Gluconic acid

B. Glutaric acid

C. Saccharic acid

D. Hexanoic aicd

Answer: C

View Text Solution

20. Which of the following will reduce Tollen's reagent and Fehling 's solution ?

A. Glucose

B. Fructose

C. Surcose

D. Maltose

Answer: A

View Text Solution

21. Which of the following form pentacetate with acetic anhydide ?

A. Glucose

B. Fructose

C. Lactose

D. Both a & b

Answer: D

View Text Solution

22. Which one of the reagent does not react with glucose ?

A. Acetic anhydride

B. Tollen's regent

C. Sodium bi sulphite

D. Bromine water

Answer: C

View Text Solution

23. The specific rotation of pure α and β (D) glucose are ....respectively.

A. $18.7^{\circ}, 112^{\circ}$

B. $112^{\circ}, 18.7^{\circ}$

C. $90^\circ, 90^\circ$

D. $120^\circ, 20^\circ$

Answer: B

View Text Solution

24. Sugar differing in configuration at an asymmetric centre is know as ..... .

A. Epimers

B. isomers

C. anomers

D. monomers

Answer: A

View Text Solution

25. Which enzyme is utilised in the conversion of galactose to glucose ?

A. Maltose

B. Epimerase

C. Invertase

D. Zymase

Answer: B

View Text Solution

26. The other name of fructose is ..... .

A. Ketohexose

B. Fruit sugar

C. levulose

D. all the above

Answer: D

View Text Solution

27. Hydrolysis of inulin in acidic medium gives ..... .

A. glucose

B. fructose

C. both a & b

D. maltose

Answer: B

View Text Solution

28. Invert sugar is a mixture of equal amount of ..... .

A. lactose + maltose

B. diastose + galactose

C. glucose + fructose

D. starch + cellulose

Answer: C

View Text Solution

29. Which enzyme is used in the conversion of sucrose into glucose and fructose ?

A. Zymase

B. Invertase

C. Diastase

D. Maltase

Answer: B

View Text Solution

30. Which one of the following is the sweetest of all known sugars ?

A. Lactose

B. Glucose

C. Fructose

D. Sucrose

Answer: C

View Text Solution

31. Which is the product formed when fructose undergoes partial reduction with sodium amalgam and water ?

A. Sorbital + mannitol

B. D - mannose + D- galactose

C. Gluconic acid + saccharic acid

D. Aldehyde + ketone

Answer: A

View Text Solution

32. Which one of the following reagent is used to convert furctose into sorbitol and mannitol ?

A. $LiAIH_4$

B. HI/Red P

C. Na/Hg

D. Conc. HNO_3

Answer: C

View Text Solution

33. Fructose on oxidation with concentrated nitric acid gives ..... .

A. glyceric acid + oxlaic acid

B. glycollic aicd + tartaric acid

C. tartronic acid + mesoxalic acid

D. acetic acid + hexanoinc acid

Answer: B

View Text Solution

34. How many asymmetric carbon atoms are present in fructose ?

A. 4

B. 3

C. 2

D. 6

Answer: B

View Text Solution

35. Two monosaccharides ar linked by.....to form a disaccharide .

A. glycosidic linkage

B. peptide bond

C. $-\underset{\underset{O}{||}}{C}-\underset{\underset{H}{|}}{N}-$ linkage

D. $-\underset{\underset{O}{||}}{C}-$ linakge

Answer: A

View Text Solution

36. Which of the following is not an example of disaccharide ?

A. Sucrose

B. Lactose

C. Maltoes

D. Cellulose

Answer: D

View Text Solution

37. The enzyme that catalyes the hydrolysis of surcose to glucose and fructose is .....

A. Zymase

B. Invertase

C. diastase

D. maltase

Answer: B

View Text Solution

38. Which one of the following contain a mixture of glucose , fructose and sucrose ?

A. Sugarcane

B. Beetroot

C. Honey

D. Mango

Answer: C

View Text Solution

39. Consider the following statements .

(i) In surcose , C_1 of α - D -glucose is joined to C_2 of D - fructose .

(ii) Two monosaccharides are linked by

glycosidic linkage .

(iii) In sucrose C_2 of α - D- glucose is joined to C_1 of D- fructose .

Which of the above statement is / are correct ?

A. iii only

B. i&ii

C. ii only

D. i&iii

Answer: B

View Text Solution

40. Which one of the following is an example of non-reducing sugare ?

A. Glucose

B. Dextrose

C. Lactose

D. Sucrose

Answer: D

View Text Solution

41. Which one of the following on hydrolysis give galactose and glucose ?

A. Maltose

B. Cellulose

C. Lactose

D. Sucrose

Answer: C

View Text Solution

42. Which one of the following is called milk sugar ?

View Text Solution

43. Which of the following is the major source of maltose ?

A. Honey

B. Apple

C. Sprouting barley

D. Grapes

Answer: C

View Text Solution

44. Which one is produced during digestion of starch by the enzyme α - amylase ?

A. Maltose

B. Glucose

C. Fructose

D. Lactose

Answer: A

View Text Solution

45. Consider the following statements .

(i) Maltose consists two molecules of α- D glucose units linked by an α 1, 4 glycosidic bond.

(ii) Maltose act as non - redcuing sugar.

(iii) Maltose is produced during digestion of

cellulose by the enzyme α - amylase .

Which of the above statement is / are not correc ?

A. I only

B. i& ii

C. ii only

D. ii & iii

Answer: D

View Text Solution

46. Which of the following is hetero polysaccharide ?

A. Starch

B. Heparin

C. Cellulose

D. Glycogen

Answer: B

View Text Solution

47. Which of the following is a homoplysaccharide ?

A. Hyaluronic acid

B. Heparin

C. Both (a) & (b)

D. Starch

Answer: D

View Text Solution

48. Consider the following statements .

(i) Strach contains 80% of amylase and about 20%amylopection

(ii)Polysaccharides are called sugar

(iii) Lactose act as reducing agent.

Which of the above statement is / are not correct ?

A. i&ii

B. iii

C. ii&iii

D. ii only

Answer: A

View Text Solution

49. Which one of the following gives blue colour with amylose and purple colour with amylopectin ?

A. Tollen' reagent

B. Fehling's solution

C. Iodine solution

D. Bromic water

Answer: C

View Text Solution

50. Which colour is formed when amylose is treated with idoine solution ?

A. Purple

B. Red

C. Blue

D. Violet

Answer: C

View Text Solution

51. Which colour is formed when amylose is treated with idoine solution ?

A. Purple

B. Blue

C. Green

D. Red

Answer: A

View Text Solution

52. Which one of the following is the major constituent of plant cell wells?

A. Starch

B. Cellulose

C. Glycogen

D. Amylose

Answer: C

View Text Solution

53. Consider the following statements

(i) Cellulose is a straight chain polysaccharide .

(ii) The glucose molecules in cellulose are linked by $\beta(1, 4)$ glycosidic bond.

(iii) Cotton is almost pure starch.

Which of the above statement is / are correct ?

A. ionly

B. ii only

C. iii only

D. i&ii

Answer: D

View Text Solution

54. Which of the following enzyme can hydrolyse the cellulose ?

A. Invertase

B. Glycosidase

C. Zymase

D. Diastase

Answer: B

View Text Solution

55. Which one of the following is called gun cotton ?

A. Nitrated ester of cellulose

B. Cellulose

C. Glyceryl trinitrate

D. Trinitroluene

Answer: A

View Text Solution

56. Which of the following is called animals strach ?

A. Cellulose

B. Glycogen

C. Lactose

D. Fat

Answer: B

View Text Solution

57. Consider the following statements .

(i) The excessive glucose in the body is stored in the form of amylose and amylopectin .

(ii) Glycogen is present in the liver and muscle of animals .

(iii) Protein is stored in the body as glycosin and in plant as starch.

Which of the above statement is /are not correct ?

A. i&ii

B. ii &iii

C. I only

D. iii only

Answer: A

View Text Solution

58. Which one of the following is stored in the body as glycogen and in plant as starch ?

A. Protein

B. Vitamin

C. Fat

D. Carbohydrates

Answer: D

View Text Solution

59. Which one of the following act as shock absorber and lubricant ?

A. Glycoasamino glycans

B. Glycogen

C. Cellulose nitrate

D. Rayon explosive

Answer: A

View Text Solution

60. Which biomolecule is the most abunadant in all living organisms ?

A. Carbohydrates

B. vitamins

C. Hormones

D. Proteins

Answer: D

View Text Solution

61. Which of the following is mainly present in proteins ?

A. β - keto acid

B. α - amino acid

C. α, β - ketol

D. amide and acids

Answer: B

View Text Solution

62. Which of the amino acid is optically inactive ?

A. Alanine

B. Valine

C. Glycine

D. Proline

Answer: C

View Text Solution

63. Proteins are generally ..... .

A. poly amides

B. polyesters

C. polymer

D. poly peptide

Answer: D

View Text Solution

64. Which one of the following is an example for fibrous protein?

A. Myoglobin

B. Insulin

C. Keratin

D. Enzymers

Answer: C

View Text Solution

65. Which one of the following is an example for globular protein?

A. Kerating

B. Myoglobe

C. Collagen

D. Etastin

Answer: B

View Text Solution

66. Consider the following statement .

(i) The amino acids are linked electro valently by peptide bonds in proteins.

(ii) Fibrous proteins are linear molecules similar to fibres.

(iii) Globular proteins have a linear shape.

Which of the above statement is / are not correct ?

A. iii only

B. i&iii

C. ii &iii

D. ii only

Answer: B

View Text Solution

67. Consider the following statement.

(i) The relative arrangement of amino acids in the polypeptide chain called the secondary structure of protein.

(ii) α -Helix and β strands are two most common sub structures formed by proteins.

(iii) α - Helix and β - -strands further folds to form the three dimensional arrangement in tertiary structure of proteins.

Which of the above statement is / are correct ?

A. ionly

B. i &iii

C. ii&iii

D. ii only

Answer: B

View Text Solution

68. Which of the following act as structural backbones?

A. Keratine , collagen

B. Myoglobin , insulin

C. Glycine , proline

D. Alanime , cysteine

Answer: A

View Text Solution

69. Which of the following act as structural backbones ?

A. Keratine , collagen

B. Insulin, glucagon

C. Glycine, proline

D. Alanime , cysteine

Answer: B

View Text Solution

70. Which one of the follwoing act as catalyst in the interconversion of carbonic acid to water and carbondioxide?

A. Lactose

B. Carbonic anhydrase

C. Glycosidase

D. Invertase

Answer: B

View Text Solution

71. Which enzyme catalyses the hydrolysis of sucrose to fructose and glucose?

A. Lactase

B. Invertase

C. Sucrase

D. Zymase

Answer: C

View Text Solution

72. Lactase enzyme hydrolyses the lactose into its constituent as ..... .

A. glucose , fructose

B. glucose , galactose

C. fructose only

D. glucose only

Answer: B

View Text Solution

73. Consider the following statement .

(i) Lipids are the principal components of cell membranes including cell walls.

(ii) Enzymes are biocatalysts that catalyses the hydrolysis of surcose to fructose and glucose .

Which of the above statement is / are correct ?

A. I only

B. iii only

C. I & ii

D. ii & iii

Answer: C

View Text Solution

74. Which one help in the absorption and transport of fat soluble vitamins?

A. Lipids

B. Protein

C. Enzyme

D. Water

Answer: A

View Text Solution

75. Which one act as emulsifier in fat metabolism?

A. Enzymes

B. Fats

C. Lipids

D. Proteins

Answer: C

View Text Solution

76. Which one of the following is fat soluble vitamin?

A. Vitamin B1

B. Vitamin B6

C. Vitamin C

D. Vitamin A

Answer: D

View Text Solution

77. Which one of the following is a water soluble vitamin C ?

A. Vitamin A

B. Vitamin D

C. Vitami C

D. Vitamin K

Answer: C

View Text Solution

78. Which one of the following deficient disease of Vitamin A ?

A. Cheilosis

B. Xerophthalmia

C. Convulsions

D. Perncious Anaemia

Answer: B

View Text Solution

79. Which Vitamin deficiency leads to cheilosis?

A. Vitamin B_{12}

B. Vitamin B_6

C. Vitamin B_2

D. Vitamin B_5

Answer: C

View Text Solution

80. Which one of the following vitamin deficiency leads to Rickets?

A. Vitamin A

B. Vitamin B_1

C. Vitamin C

D. Vitamin D

Answer: D

View Text Solution

81. Which vitamin deficiency leads to Hair loss , muscle pain ?

A. Biotin

B. Niacin

C. Riboflavin

D. Thiamine

Answer: A

View Text Solution

82. The deficiency of Vitamin B_{12} leads to Hair loss, muscle pain ?

A. convulsions

B. beriberi

C. pernicious anaemia

D. pellagram

Answer: D

View Text Solution

83. Which of the following is the chemical name of Vitamin B_{12} ?

A. Folic acid

B. Cobalamin

C. Pyridoxime

D. Riboflavin

Answer: B

View Text Solution

84. Night blindness and kertinisation of skin is due to the deficiency of ..... .

A. vitamin B_1

B. vitamin C

C. Vitamin A

D. vitamin B_{12}

Answer: C

View Text Solution

85. Which vitamin deficiency leads to the disease megaloblastic anaemia?

A. vitamin B_9

B. vitamin B_6

C. vitamin B_{12}

D. vitamin B_2

Answer: A

View Text Solution

86. Which one of the following is rich in liver oil, carrot , mango and papaya ?

A. Vitamin B_1

B. Vitamin C

C. Vitamin A

D. Vitamin D

Answer: C

View Text Solution

87. Which of the vitamin deficiency leads to photosensitive dermatitis (or) pellagra?

A. Vitamin B_5

B. Vitamin B_6

C. Vitamin B_3

D. Vitamin D

Answer: C

View Text Solution

88. Depression , Hair loss muscle pain are due to the deficiency of vitamin .....

A. A

B. B_{12}

C. B_2

D. B_7

Answer: C

View Text Solution

89. The chemical name of vitamin B_9 is ..... .

A. biotin

B. folic acid

C. niacin

D. thaimain

Answer: B

View Text Solution

90. Which of the following is rich in cirtur, fruits tomato, amla and leafy vegeatbles ?

A. vitamic C

B. Vitamin E

C. Vitamin A

D. Vitamin D

Answer: A

View Text Solution

91. Consider the following statement .

(i) Vitamin D functions in the adsorption and maintenance of calcium.

(ii) Vitamin E act as an antioxidant.

(iii) Vitamin C functions in blood clotting.

Which of the above statement is / are correct ?

A. iii only

B. ii & iii

C. i&ii

D. ionly

Answer: C

View Text Solution

92. Which vitamin is rich in cotton seed oil , sunflower oil, wheat germ oil and all vegetable oils ?

A. Vitamin C

B. Vitamin E

C. Vitamin A

D. Vitamin D

Answer: B

View Text Solution

93. Which vitamin deficiency leads to the disease osteomalacia ?

A. Vitamin D

B. Vitamin A

C. Vitamin C

D. Vitamin K

Answer: A

View Text Solution

94. Which one of the following is mainly required for blood clotting ?

A. Vitamin E

B. Vitamin B_{12}

C. Vitmain C

D. Vitamin K

Answer: D

View Text Solution

95. Consider the following statement .

(i) Nucleic acid are biopolymers of nucleotides

.

(ii) Controlled hydrolysis of DNA and RNA yield

3 components namely a nitrogeneous base , a pentose sugar and sulphate group .

(iii) DNA and RNA are the molecular repositories that carry genetic information in every organism .

Which of the above statement is / are correct ?

A. ionly

B. ii only

C. I & iii

D. ii &iii

Answer: C

View Text Solution

96. Which one of the following is found in cytoplasm and in ribosomers which contain 60% RNA and 40% protein.

A. Riosomal RNA

B. Messenger RNA

C. Transfer RNA

D. DNA

Answer: A

View Text Solution

97. Consider the following statement .

(i) Ribsomers are the sites at which portein synthesis takes place .

(ii) Messenger RNA carried genetic information from DNA to the ribosomes for protein synthesis .

(iii) t RNA consist of 20-40 nucleotides in a single chain .

Which of the above statement is /are not correct ?

A. ionly

B. i & ii

C. iii only

D. ii & iii

Answer: C

View Text Solution

98. What is the name of the process of synthesis of mRNA form DNA strand ?

A. Transpiration

B. Transciption

C. Transformation

D. Trans esterification

Answer: B

View Text Solution

99. Consider the following statement .

(i) DNA mainly present in cytoplasm , nucleolus and ribosomes .

(ii) RNA is stable and not hydrolysed easily by alkalis.

(iii) DNAcan replicate itself .

Which of the above statements is / are correct ?

A. iii only

B. I only

C. i & ii

D. ii & iii

Answer: C

View Text Solution

100. Who invented DNA finger printing ?

A. Sir Alec Jeffery

B. Rosalind Franklin

C. Waston and Crick

D. Maurice Wilkins

Answer: A

View Text Solution

101. Which one of the following can act as energy carriers ?

A. GTN

B. ATP

C. FAD

D. Cyclic AMP

Answer: B

View Text Solution

102. Adenosine 3',5' - cyclic monophosphate a chemical messenger is otherwise called ..... .

A. ATP

B. cyclic ADP

C. cyclic ATP

D. 3'P - ADP

Answer: C

View Text Solution

103. Consider the following statement .

(i) Endocrine glands make hormones .

(ii) Hormones may be calssified as either protein (or) steroids .

(iii) Hormones are intracellular signalling molecule .

Which of the above statement is / are not correct ?

A. ionly

B. ii & iii

C. iii only

D. i & iii

Answer: D

View Text Solution

104. which one of the following is a steroid ?

A. Insulin

B. Epinephrine

C. Inulin

D. Estrogen

Answer: D

View Text Solution

105. Which of the following is a protein hormone ?

A. Insulin

B. Androgen

C. Cortisol

D. Estrogen

Answer: A

View Text Solution

106. The nucleic acid base having two possible binding sites is ..... .

A. thymine

B. cytosine

C. guanine

D. adenine

Answer: C

View Text Solution

107. DNA multiplication is called ..... .

A. transcription

B. transformation

C. transduction

D. replication

Answer: D

View Text Solution

108. Insulin is a protein which plays the role of ..... .

A. an antibody

B. a hormone

C. an enzyme

D. a transporting agent

Answer: B

View Text Solution

109. Which metal is present in Vitamin B_{12}?

A. Ca (II)

B. Zn (II)

C. Fe (II)

D. Co (III)

Answer: D

View Text Solution

110. The helical structure of protein is stabilzed by ..... .

A. oxygen bonds

B. peptide bonds

C. dipeptide bonds

D. hydrogen bonds

Answer: D

View Text Solution

111. The cell membranes are mainly composed of ..... .

A. carbohydrates

B. proteins

C. phospholipids

D. fats

Answer: C

View Text Solution

112. Which one of the following is a polysaccharide ?

A. Nylon

B. Amylose

C. Ribose

D. Polyethene

Answer: B

View Text Solution

113. Ribose is an example of ..... .

A. keto hexose

B. aldohexose

C. aldo pentose

D. disaccharide

Answer: C

View Text Solution

114. Sucrose molecule is made up of ..... .

A. a gluco pyranose and fructo pyranose

B. a glyco pyranose and fructo furanose

C. a gluco furanose and fructo pyranose

D. a gluco furanose and fructo furanose

Answer: B

View Text Solution

115. A nucleotide consist of ..... .

A. base and sugare

B. base and phosphate

C. sugar and phosphate

D. base , sugar and phosphate

Answer: D

View Text Solution

116. Which of the following is responsible for herdity character ?

A. DNA

B. RNA

C. Proteins

D. Hormones

Answer: A

View Text Solution

117. The base adenine present in

A. DNA only

B. RNA only

C. Both DNA & RNA

D. Protein

Answer: C

View Text Solution

118. The protein which maintains the blood sugar level in the human body is. ..... .

A. haemoglobin

B. oxytocin

C. insulin

D. ptyalin

Answer: C

View Text Solution

119. Ascorbic acid is a..... .

A. vitamin

B. enzyme

C. protein

D. hormone

Answer: A

View Text Solution

120. Which of the following is not a constitutent of RNA?

A. Ribose

B. Phosphate

C. Adenine

D. Pyridine

Answer: D

View Text Solution

121. Which one is found in AlP ribonucleotide'

A. Guanine

B. Uracil

C. Adenine

D. Inulin

Answer: C

View Text Solution

122. Which substance is not present in nucleic acid?

A. Cytosine

B. Adenine

C. Thymine

D. Guanidine

Answer: D

View Text Solution

123. In nucleic acid , the correct sequence is ..... .

A. base - phosphate sugar

B. phosphate - base -sugar

C. sugare - base - phosphate

D. base - sugar - phosphate

Answer: D

View Text Solution

124. The double helical structure of DNA was proposed by ..... .

A. Waston and Crick

B. Meicher

C. Emil Fischer

D. Khorana

Answer: D

View Text Solution

125. Which substance is not present is nucleic acid ?

A. Cytosine

B. Adenine

C. Thymine

D. Guanidine

Answer: D

View Text Solution

126. In DNA, the complementary bases are ..... .

A. Uracil and adenine , cytosine and guanine

B. Adenine and thymine , guanine and cytosine

C. Adenine and guanine , thymine and cytosine

D. adenine and guanine , thymine and uracil

Answer: B

View Text Solution

127. The structure of DNA is ..... .

A. lineaar

B. single helix

C. double helix

D. triple helix

Answer: C

View Text Solution

128. A gene is a segment of molecule of ..... .

A. DNA

B. m-RNA

C. t-RNA

D. protein

Answer: C

View Text Solution

129. The deficiency of vitamin C causes.....

A. scurvy

B. rickets

C. pyrrohea

D. pellagra

Answer: A

View Text Solution

130. Which sugar is present in DNA?

A. Deoxyribose

B. Ribose

C. D-fructose

D. D - glucose

Answer: A

View Text Solution

131. The base present in DNA but not in RNA is..... .

A. guanine

B. adenine

C. uracil

D. thymine

Answer: D

View Text Solution

132. Mutation of DNA occurs due to changes in the sequence of one of the following.

A. Bases

B. Ribose units

C. Phosphate units

D. Sugar units

Answer: A

View Text Solution

133. Blood calcium level can be increased by the administration of

A. glucogon

B. calcitionin

C. thyroxine

D. paratharmone

Answer: D

View Text Solution

134. The first hormone chemically synthesised in the laboratory is ..... .

A. cortisone

B. insulin

C. adrenaline

D. eastrone

Answer: B

View Text Solution

135. RNA is different from DNA because RNA contains.....

A. Ribose sugar and tymine

B. Ribose sugar and uracil

C. Doxyribose sugar and thymine

D. Deoxy ribose sugar and uracil

Answer: B

View Text Solution

136. The hormone that helps in the conversion of glucose to glycogen is..... .

A. adrenaline

B. insulin

C. cortisone

D. bile acid

Answer: B

View Text Solution

137. Enery is stored in our body in the form of ..... .

A. ATP

B. ADP

C. Fats

D. Carbohydrates

Answer: A

View Text Solution

138. Nucleic acid is a polymer of..... .

A. Nucleosides

B. α -aminoacids

C. nucleotides

D. glucose

Answer: C

View Text Solution

139. Which one of the following is named as peptides ?

A. Esters

B. Salts

C. Amides

D. Ketones

Answer: C

View Text Solution

140. Irreversible precipitation of proteins is called ..... .

A. denaturation

B. hydrolysis

C. Transformation

D. Trans esterification

Answer: A

View Text Solution

141. Which of the following is not an essential amino acid ?

A. Valime

B. Lysine

C. Histidine

D. Glycine

Answer: D

View Text Solution

142. Proteins are hydrolysed by enzymes into ..... .

A. dicarboxylic aicd

B. hydroxy acids

C. amino acids

D. aromatic acids

Answer: C

View Text Solution

143. Which one of the protein transports oxygen in the blood stream ?

A. Myoglobin

B. Insulin

C. Albumin

D. Haemoglobin

Answer: D

View Text Solution

144. Enzymes in the living systems..... .

A. provide energy

B. provide immunity

C. catalyse biological

D. transport oxygen

Answer: C

View Text Solution

145. Which compound can exist in a dipolar state ?

A. $C_6H_5CH_2CH(N=CH_2)COOH$

B. $(CH_3)_2CH-CH(NH_2)COOH$

C. $C_6H_5CONHCH_2COOH$

D.

$$HOOC-CH_2-CH_2-CO-COOH$$

Answer: B

View Text Solution

146. Haemoglobin is .....

A. an enzyme

B. a globular protein

C. a vitamin

D. Carbohydrates

Answer: B

View Text Solution

147. The number of essential amino acid in man is ..... .

A. 8

B. 10

C. 20

D. 19

Answer: B

View Text Solution

148. Which one of the biomolecule is insoluble in water ?

A. keratin

B. Haemolgobin

C. Ribonuclease

D. Adenine

Answer: A

View Text Solution

149. Which of the following is used in our body as a feul for muscles and nerves and to build and repair body tissues ?

A. Cane sugar

B. Fructose

C. Proteins

D. Glucose

Answer: C

View Text Solution

150. The bond that determines the secondary structure of proteins is ..... .

A. coordinate bond

B. covalent bond

C. hydrogen bond

D. peptide bond

Answer: C

View Text Solution

151. Which of the following monosaccharide is a pentose?

A. Galactose

B. Glucose

C. Fructose

D. Arabinose

Answer: D

View Text Solution

152. Which of the following is a carbohydrate ?

A. Leucine

B. Albumin

C. Inulin

D. Maltase

Answer: C

View Text Solution

153. Glucose gives silver mirror with Tollen's reagent . It shows the presence of ..... .

A. an acidic group

B. an alcoholic group

C. a ketonic group

D. an aldehydic group

Answer: D

View Text Solution

154. The compound which does not contain an asymmetric carbon atom is ..... .

A. glyceraldehyde

B. glycine

C. glucose

D. frutose

Answer: B

View Text Solution

155. Which one of the following compound is found abuandantly in nature ?

A. Fructose

B. Strach

C. Glucose

D. Cellulose

Answer: D

View Text Solution

156. Blood sugar is the same as ..... .

A. glucose

B. galactose

C. glycogen

D. frutose

Answer: D

View Text Solution

157. Which of the following is an aldohexose ?

A. Sucrose

B. Cellulose

C. Glucose

D. Raffinose

Answer: C

View Text Solution

158. Glucose and mannose are..... .

A. epimers

B. anomers

C. keto hexoses

D. disaccharides

Answer: A

View Text Solution

159. Which of the following is the sweetest sugar?

A. Glucose

B. Fructose

C. Lactose

D. Sucrose

Answer: B

View Text Solution

160. In fructose , the possible optical isomers are ..... .

A. 12

B. 16

C. 8

D. 4

Answer: C

View Text Solution

161. Which one of the following is not used to convert glucose into gluconic acid ?

A. Br_2 water

B. Conc. HNO_3

C. Tollen's reagent

D. Fehling's solution.

Answer: B

View Text Solution

Additional Questions Fill In The Blanks

1. Chemically, carbohydrates are defined as ..... or ..... with a general formula ..... .

View Text Solution

2. ..... are synthesised by green leaves during photo synthesis .

View Text Solution

3. Almost all .....are optically active as they one or more chiral carbon.

View Text Solution

4. .....are carbohydrates that cannot be hydrolysed further and are also called simple sugars.

View Text Solution

5. Erythrose is an example of..... .

View Text Solution

6. Glyceraldehyde is an example of..... in monosaccharides.

View Text Solution

7. Glucose in human blood about.....and it also known as ..... .

View Text Solution

8. Ribulose is an example of .....

View Text Solution

9. Glucose solution is optically active and it rotates the plane polarised light in ..... direction and so it called..... .

View Text Solution

10. Glucose when oxidised with con.HNO_3, give .....

View Text Solution

11. The reaction of glucose with Tollen's reagent or Fehling's solution confims the presenceof .....group in glucose.

View Text Solution

12. The exact special arrangement of-OH groups in glucose was given by.....

View Text Solution

13. The cyclic structure of glucose with 5 carbon and one oxygen atom is called.....

View Text Solution

14. The slow interconversion of α - D glucose $\beta - D$ glucose via open chain form under equilibrium is called .....

View Text Solution

15. ..... is present abundantly in fruits and hence it is also called fruit sugar.

View Text Solution

16. The solution having equal amount of glucose and fructose is termed as .....

View Text Solution

17. Partial reduction of fructose with sodium amalgam and water produces .....and .....which are .....at second carbon.

View Text Solution

18. The reaction sodium amalgam and water with fructose confirms the presence of ..... .

View Text Solution

19. The cyclic form of fructose is called.....

View Text Solution

20. Disaccharides have general formula .....

View Text Solution

21. In disaccharides, two monosaccharides are linked by .....called..... .

View Text Solution

22. Sucrose is also called .....sugar.

View Text Solution

23. .....is produced during digestion of starch by the enzyme α -amylase

View Text Solution

24. Starch contains about 20%.....and about 80% of .....

View Text Solution

25. Starch is used for .....in plants.

View Text Solution

26. Cotton is almost pure .....

View Text Solution

27. .....is the storage polysaccharides of animals .

View Text Solution

28. .....act as shock absorber and lubricant

View Text Solution

29. Proteins are polymers of.....

View Text Solution

30. Orinithine and citrulline are called.....

View Text Solution

31. At a specific pH value the net charge of an amino acid in neutral is called .....

View Text Solution

32. Except.....all other amino acids are optically active.

View Text Solution

33. In proteins, the amino acids are linked covalently by ..... .

View Text Solution

34. The process of a protein, losing its higher order structure without losing the primary structure is called.....

View Text Solution

35. Proteins such as. .....,.....act as structural back bones .

View Text Solution

36. .....and.....controls the glucose level in the blood .

View Text Solution

37. ..... as biocatalysts that catalyse a specific biochmical reaction.

View Text Solution

38. Lipids act as .....in fact metabolism .

View Text Solution

39. Vitamin A, D, E and k are .....vitamins .

View Text Solution

40. .....deficiney leads of the disease cheilosis .

View Text Solution

41. .....deficiney leads of the disease pellagra.

View Text Solution

42. .....is a part of conenzyme A in carbohydrates protein and fat metabolsim.

View Text Solution

43. .....is rich in mushroom, avocada, egg yolk , sunflower oil.

View Text Solution

44. .....deficieny leads to pernicious Anaemia.

View Text Solution

45. All citrus fruits and amla rich in vitamin.....

View Text Solution

46. .....funciton in blood clotting .

View Text Solution

47. Nueleic acids are bio polymers of .....

View Text Solution

48. Both DNA and RNA have two major purine bases.....and..... .

View Text Solution

49. The recurring deoxyribonucleotie units od DNA contants .....and the ribonculeoitde unit of RNA contain.....

View Text Solution

50. The molecule with the phosphate group is called a ..... .

View Text Solution

51. The speifci association of the two chains of the double helxin in DNA is known as ..... .

View Text Solution

52. The synthesis of mRNA from DNA strand is called.

View Text Solution

53. .....was first invented by Sir Alee Jeffry.

View Text Solution

Additional Questions Assertion And Reasons

1. Assertion (A) : Almost all carbohydrates are optically active .

Reason (R) : All carbohydrates have one or more chiral carbon atoms.

A. Both A and R are correct and R is the correct explanation of A .

B. Both A and R are correct but R is not the correct explanation of A

C. A is correct but R is wrong

D. A is wrong but R is correct .

Answer: A

View Text Solution

2. Assertion (A) : Glucose is called bloond sugar.

Reason (R) : Human blood contains about 100 mg/dl of glucose hence it is called blood sugar.

A. Both A and R are correct and R is the correct explanation of A .

B. Both A and R are correct but R is not the correct explanation of A

C. A is correct but R is wrong

D. A is wrong but R is correct .

Answer: A

View Text Solution

3. Assertion (A) : Glucose is called aldohexose as well as dextrose.

Reason (R) : Glucose contain an aldehyde

group annd it rotates the plane polarished light in the clockwise direction.

A. Both A and R are correct and R is the correct explanation of A .

B. Both A and R are correct but R is not the correct explanation of A

C. A is correct but R is wrong

D. A is wrong but R is correct .

Answer: A

View Text Solution

4. Assertion (A) : Glucose contains an aldehyde group and it occupies one end of the carbon chain.

Reason (R) : When glucose is oxidised by bromine water , it gets oxidised to gluconic acid confirms the position of aldehyde group.

A. Both A and R are correct and R is the correct explanation of A .

B. Both A and R are correct but R is not the correct explanation of A

C. A is correct but R is wrong

D. A is wrong but R is correct .

Answer: A

View Text Solution

5. Assertion (A) : Glucose contains one primary alcohol group at the end of the carbon chain.

Reason (R) : When glucose is oxidised agent

conc. HNO_3 it gives glucaric acid proves the presence of $-CH_2OH$ group at one end of carbon chain in glucose .

A. Both A and R are correct and R is the correct explanation of A .

B. Both A and R are correct but R is not the correct explanation of A

C. A is correct but R is wrong

D. A is wrong but R is correct .

Answer: A

View Text Solution

6. Assertion (A) : Glucose and mannose are epimers.

Reason (R) : sugars differing in configuration at an asymmetric centre are called epimers.

A. Both A and R are correct and R is the correct explanation of A .

B. Both A and R are correct but R is not the correct explanation of A

C. A is correct but R is wrong

D. A is wrong but R is correct .

Answer: A

View Text Solution

7. Assertion (A) : Fructose is called levulose and keto hexose .

Reason (R) : Fructose contains a ketone group and fructose rotates the plane polarised light in anticlockwise direction .

A. Both A and R are wrong

B. Both A and R are correct and R is the correct explanation of A .

C. A is wrong but R is correct

D. A is correct but R is wrong .

Answer: B

View Text Solution

8. Assertion(A): Sucrose is called invert sugar.

Reason (R): During hydrolysis of sucrose, the optical rotation of the reaction mixture changes from dextro to levo.

A. Both A and R are correct and Ris the correct explanation of A.

B. Both A and R are correct but R is not the correct explanation of A.

C. A is correct but R is wrong.

D. A is wrong but R is correct.

Answer: A

View Text Solution

9. Assertion (A) : Surcose is an bib reducing sugar.

Reason (R) : In sucrose , C_1 of α - D glucose and C_2 of D - fructose are joined together by glycosidic bond . Both the carbonyl carbons are involved in glycosidic bonding .

A. Both A and R are correct but R is not the correct explanation of A.

B. Both A and R are correct and R the correct explanation of A

C. A is correct but R is wrong.

D. Ais wrong but R is correct

Answer: B

View Text Solution

10. Assertion(A): A disaccharide lactose act as reducing sugar.

Reason (R): In lactose, β - D galactose and β - D glucose are linked $\beta - 1, 4$ - glycosidic bond in which aldehyde group is not involved.

A. A is correct but R is wrong.

B. Both A and R are correct but R is not the correct explanation of A.

C. Both A and R are correct and R is the correct explanation of A.

D. Ais wrong but R is correct.

Answer: C

View Text Solution

11. Assertion(A): Lactose is referred to as milk sugar.

Reason (R) : It is extracted from sprouted barley.

A. Both A and R are correct and R is the correct explanation of A.

B. Both A and R are worng.

C. A is correct but R is wrong.

D. A is wrong but R is correct.

Answer: A

View Text Solution

12. Assertion(A): Maltose, a disaccharide acts as a reducing sugar.

Reason (R): Maltose consists of two molecules of α - D glucose with linked by α 1,4 - glycosidic bond and one glucose has the carbonyl group.

A. Both A and R are correct and R is the correct explanation of A

B. Both A and R are correct but R is not the correct explanation of A .

C. A is correct but R is wrong.

D. A is wrong but R is correct

Answer: A

View Text Solution

13. Assertion (A) : Expect glyicine all other amino acids are optically active.

Reason (R) : Glycine does not contain chiral atom whereas in all other amino acids have chiral carbon atom.

A. Both A and R are wrong

B. A is correct but R is wrong

C. Both A and R are correct and R is the correct explanation of A .

D. Both A and R are correct but R is not the correct explanation A .

Answer: A

View Text Solution

14. Assertion (A) : Enzyme have acitve sites and substrates , reactive sites on their surface respectively.

Reason (R) : Active and reactive sites push the enzyme and substrate molecules away form each other .

A. Both A and R are correct and R is the correct explaanation of A

B. Both A and R are correct but R is not the correct explanaiton of A .

C. A is correct but R is wrong .

D. A is wrong but R is correct .

Answer: A

View Text Solution

15. Assertion (A) : Enzymes are defined as biological protein .

Reason (R) : On heating , enzymes do not lose their specific activity .

A. Both A and R are correct and R is the correct explanation of A .

B. Both A and R are worng

C. A is correct but R is wrong

D. A is wrong but R is correct .

Answer: A

View Text Solution

16. Assertion (A) : DNA and RNA molecules are found in the molecules of the cell .

Reason (R) : On heating enzyme do not lose their specific activity .

A. Both A and R are correct and R explains

A.

B. Both A and R are wrong.

C. A is correct but R is wrong

D. A is wrong but R is correct

Answer: B

View Text Solution

17. Assertion (A) : Vitamin D can be stored in our body.

Reason (R) : Vitamin D is fat soluble vitamin.

A. A is correct but R not explains A .

B. Both A and R are correct and R explain A .

C. A is correct but R is wrong .

D. A is wrong but R is correct .

Answer: B

View Text Solution

18. Assertion (A) : Glycine must be taken through diet .

Reason (R) : It is an essential amino acid .

A. Both A and R are correct and R explains A .

B. Both A and R are correct but R does not explain A .

C. A is wrong but R is wrong .

D. Both A and R are wrong

Answer: D

View Text Solution

19. Assertion(A): In proteins, amino acids are linked through peptide bonds.

Reason (R): Peptide bonds are glycosidic (or) oxygen bridges.

A. Both A and R are correct and R explains A.

B. Both A and R are correct but R does not explains A.

C. A is correct but R is wrong.

D. Ais wrong but R is correct.

Answer: C

View Text Solution

20. Assertion(A): Monosaccharides are held by glycocidic bonds.

Reason (R): Monosaccharides are macro molecules

A. Both A and R are correct and R explains A.

B. Both A and R are correct but R does not explains A.

C. A is wrong but R is correct.

D. Both A and R are wrong.

Answer: D

View Text Solution

Additional Questions Find The Odd One Out And Give The Reasons

1. Glucose, fructose, galactose, mannose, sucrose.

View Text Solution

2. Glucose, aldo hexose, dextrose, blood sugar, fruit sugar.

View Text Solution

3. Fructose, fruit sugar, milk sugar, levulose, ketohexose.

View Text Solution

4. Mannose,sucrose, lactose, maltose, diastose.

View Text Solution

5. Keratin, glucose mannose , starch , cellulose

.

View Text Solution

6. Kerain, collagen, glycine, alanine, inulin, insulin.

View Text Solution

7. Glycine, alanine, histidine, cultamine, proline, serine.

View Text Solution

8. Valine, phenyl alanine, histidine, lysine, alanine.

View Text Solution

9. Invert , maltase , zymase , maltose, lactose .

View Text Solution

10. Vitamin A, Vitamin D, Vitamin C, Vitamin C, Vitamin E , Vitamim K .

View Text Solution

Additional Questions 2 Mark Questions

1. Define carbonhydates. Give example .

View Text Solution

2. Draw tge structures of (i) D - Gluceose (ii) D - fructose .

View Text Solution

3. Draw the structure of surcose .

View Text Solution

4. Explaub photosynthesis .

View Text Solution

5. Draw and explain the structure of glyceraldehyde.

View Text Solution

6. What is meant by dextro and levo rotatory ?

View Text Solution

7. Give example for the following.

(i) Aldotriose (ii) Ketotriose (iii) Aldotetrose (iv) ketotetrose .

View Text Solution

8. Give example for the following.

(i) Aldo pentose (ii) Keto pentose (iii) Aldo hexose (iv) Ketohexose .

View Text Solution

9. Explain the action of conc. HNO_3 with fructose with equation.

View Text Solution

10. Wrtie a note about glycogen ?

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11. What are amino acid? Give its structure.

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12. Define iso electric point .

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13. Whatis zwitter ion ? Give its structure.

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14. What are hormones ? Mention their function . Name some hormones.

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15. What are the expected products of hydrolysis of lactose ?

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16. Glucose or sucrose are solbule in water by cyclohexane or benzene (simple six membered ring compounds) are insoluble d in water . Explain .

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17. How do you explain the absence of aldehyde group in the penetaacetate of D - glucose ?

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18. Why cannot Vitamin C be stored in our body ?

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19. What do you understant by the term glycosidic linkage ?

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20. What are essential and non - essentaial amino acids ?Give tow example of each type .

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21. What is the effect of denaturation on the structure of proteins ?

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22. How are vitamins classified ? Name the vitamin responsible for the coagulaiton of blood...

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23. What are nucleic acids ? Mention their two important function .

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24. What is the difference between a nucleoside and a nucleotide ?

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25. Write two main function of carbohydrates in plants .

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26. Name two components of strach .How do they differ form each other strcuturall?

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27. Name the based present in DNA . Which one of these is not present in RNA ?

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28. Name two fast soluble vitamins, their sources and the diseases caused due to their deficiency in diet.

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29. Name two water soluble vitamin, their sources and the diseases caused due to their deficiency in diet .

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Additional Questions 3 Mark Questions

1. Explain the methods of preparation of glucose .

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2. What happens when glucose reacts with (i) Br_2 / H_2O (ii) Conc. HNO_3

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3. How will you prove the presence of aldheyde group in glucose ?

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4. Define (i) Epimers (ii) Epimerisation .

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5. Explain the methods of preparation of fructose with equations.

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6. What happens when fructose is treated with sodium amalgan and water ?

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7. Explain about the cyclic structure of fructose ?

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8. Explain about tehh structure, nature and properties of sucrose .

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9. Prove that sucrose is (i) invert sugar (ii) non - reducing sugar.

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10. Write a notes abou lactose .

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11. Lactose act as reducing sugar. Justify this statement .

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12. Write about maltose with its structure.

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13. Sucrose and maltose are disaccharides but sucrose in a non reducing sugar while maltose is a reducing sugar . Give reason .

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14. Give brief account of nature and structure of cellulose .

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15. What are the uses of cellulose ?

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16. Human cannot use cellulose as food - Why ?

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17. What are the major

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18. Explain the mechanism of enzyme action ?

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19. Explain about the nature , classification and properties of lipids (or) write a note about lipids .

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20. Write the chemical name source and deficient disease of the following.

(i) Vitamin D (ii) Vitamin E (iii) Vitamin K.

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21. What are the biological function of nucleic acids ?

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22. What happens when D-glucose is treated with the following reagents ?

(i) HI (ii) Bromine water (iii) HNO_3

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23. Define the following as related to proteins.

. (i) Peptide linkage (ii) Primary structure (iii) Denatuartion .

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24. Differencce between Globular and fibrous proteins.

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25. Explain what is meant by (i) a peptide linkage (ii) a glycoside linkage .

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26. What are essential and non-essential amino aicds? Give one example of each type.

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27. Mention the type of linakge responsible for the formation of the following

(i) Primary structure of proteins (ii) Cross linking of polypeptide chains (iii) α - helix formation (iv) β - sheet structure .

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28. Name the chemical components which constitute nucleotides . Write any two functions of nucleotides in a cell.

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29. Name the main diesease caused due to lack of viatmin and its source in each of the following

A, B_6 and E.

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30. Define the following and give one example of each :

(a) Isoelectric point (b) Mutarotation (c) Enzymes .

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31. What is denaturation and renaturation of proteins ? Give reason : Amylose prsent in the salvia becomes inactive in the stomach.

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32. Define the following terms : (i) Nucleotide (ii) Anomers (iii) Essential amino acids .

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33. Which one of the following is disaccharide :

(a) Strach , Malotse, Fructose , Glucose .

(b) Write the name of vitamin whose deficiency cause bone deformities in children .

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34. Write the major classes in which the carbohydrates are divided depending upon wheter thee undergo hydrolysis and if so , the number of producets formed .

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35. (a) What changes occur is the nature of egg proteins on boiling ?

(b) Name the types of bonding which stabilises the α - helix structure in proteins .

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36. Answer the following question briefly :

(i) What are reducing sugare ?

(ii) What is meant by denaturation of a protein ?

(iii) How is oxygen replenished in our atmosphers ?

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Additional Questions 5 Mark Questions

1. How would you prove the strutcure of glucoe ? (OR) Elucidate the strcture of glucose .

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2. Expalin about the cyclis structure of Glucose .

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3. Explain about the structure of Fructose .

(OR) Elucidate the structure of Fructose .

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4. Describe about the structure , nature and propeties of starch.

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5. Explain about the structure of proteins.

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6. What are the biological importance of proteins ?

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7. Write the chemical name, source and deficient disease of the following (i) Vitamin A

(ii) Vitamin B_1 (iii) Vitamin B_2 (iv) Vitamin B_3 (v) Vitamin B_5.

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8. Write the chemical name , source and deficient of the following (i) Vitamin B_6 (ii) Vitamin B_6 (iii) Vitamin B_9 (iv) Vitamin B_{12} (v) Vitamin C.

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9. Explain about the composition and structure of nucleic acids .

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10. Describe about the double strand helix structure of DNA .

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11. Explain about the types of RNA molecules .

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12. Explain about DNA finger printing process.

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