

India's Number 1 Education App

## **CHEMISTRY**

# **BOOKS - MODERN PUBLICATION CHEMISTRY (KANNADA ENGLISH)**

# BIOMOLECULES

Multiple Choice Questions Level I

**1.** Which of the following carbohydrates is not monosaccharide ?

#### A. Glucose

**B.** Fructose

C. Lactose

D. Ribose.

Answer: C

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2. Which of the following is a polysaccharide ?

A. Cellulose

B. Sucrose

C. Galactose

D. Maltose.

Answer: A

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**3.** Maltose is hydrolysed in the presence of maltase to :

A. Glucose

- B. Glucose and fructose
- C. Glucose and galactose

D. Fructose.

Answer: A

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4. The disacchardie present in milk is :

A. Maltose

B. Lactose

C. Sucrose

D. Cellobiose.

#### Answer: B



### 5. Which of the following is a ketohexose ?

A. Fructose

B. Glucose

C. Ribose

D. Starch .

Answer: A

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**6.** Which of the following has maximum sweetness?

A. Glucose

**B.** Fructose

C. Maltose

D. Sucrose.

Answer: B

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**7.** Which of the following does not give silver mirror with Tollen's reagent ?

A. Sucrose

B. Glucose

C. Fructose

D. Lactose.

Answer: A

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**8.** Glucose is oxidised to carbon dioxide and water with oxygen in the presence of enzyme :

A. Maltose

B.  $\alpha$ -amylase

C. Lactose

D. Oxidose.

Answer: D

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**9.** The change in optical rotation of a freshly prepared solution of glucose with time is called :

A. Specific rotation

**B.** Optical inversion

C. Muta rotation

D. Racemisation.

#### Answer: C



#### 10. Which of the following carbohydrate is

found most abundantly in nature ?

A. Glucose

**B.** Fructose

C. Starch

D. Cellulose.

#### Answer: C



**11.** Hydrolysis of sugar is called :

A. mutarotation

B. saponification

C. inversion

D. deesterification.

Answer: C

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**12.** Starch is changed into disaccharides in presence of

A. diastase

B. maltase

C. Lactose

D. zymase.

Answer: A

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13. An example of disaccharide is :

A. Glucose

B. ribose

C. cellulose

D. lactose .

#### Answer: D



**14.** Invert sugar is :

A. laevo rotatory

B. dextro rotatory

C. optically inactive

D. racemic mixture.

Answer: A



**15.** Milk sugar is commonly known as :

A. Maltose

B. Glucose

C. Lactose

D. Fructose.

Answer: C

**16.**  $\alpha$  and  $\beta$  -glucose differ in the orientation of OH goup around

A. number of OH groups

B. configuration

C. conformation

D. size of hemiacetal ring .

Answer: B

17. The monomer units in strach are

A.  $\alpha$ -glucose

B.  $\beta$ -glucose

C. pyranose

D. galactose.

Answer: A



18. Which carbohydrate is an essential

constituent of plant cells ?

A. Starch

B. Cellulose

C. Sucrose

D. Vitamins.

**Answer: B** 

**19.** During synthesis of 1 molecule of glucose in photosynthesis, the number ATP molecules consumed are

B. 32

C. 52

D. 108

Answer: A

**20.** Which of the following is not an  $\alpha$ -amino acid ?

A. Serine

B. Aspartic acid

C. Phenylalanine

D. Thymine.

Answer: D

21. Alanine is :

A. an enzyme

B. purine base of nucleic acid

C.  $\alpha$ -amino acid

D. hormone .

Answer: C

22. Glycine reacts with nitrous acid to give :

A. Glycine nitrite

B. Methyl alcohol and methylamine

C. Glycolic acid

D. Ethyl glycinate.

Answer: C

23. Explain what is the meant by the following

(i) Peptide linkage .

:

(ii) Pyranose structure of glucose .

A.  $-COO - NH_2 -$ 

B.-CO-NH-

 $C. -COI - NH_2 -$ 

 $\mathsf{D.}-CN-CO-.$ 

#### Answer: B





**24.** Proteins on complete hydrolysis give :

A.  $\alpha$ -amino acids

B. lipids

C. peptides

D. nucleic acids.

Answer: A

**25.** Enzymes belong to a category of :

A. proteins

B. carbohydrates

C. vitamins

D. harmones

Answer: A



**26.** The enzyme which converts protein into amino acids during digestion is :

A. proteinases

B. lipases

C. amylases

D. adenine.

Answer: A

27. Which of the following enzyme breaks up

starch readily?

A. Lactose

B. Amylase

C. Pepsin

D. Maltose.

Answer: B

**28.** The non-protein component in enzymes which is necessary for its biological activity is :

A. Lipids

B. Coenzymes

C. Nucleic acid

D. Phosphoric acid.

#### Answer: B

29. In glycine the basic group is :

#### A. $-NH_2$

#### $\mathsf{B.}-COOH$

#### $C. -COO^{-}$

D.  $-NH_{3}^{+}$ .

#### Answer: C



30. Which of the following is not an essential

amino acid ?

A. Alanine

B. Leucine

C. Valine

D. Lysine.

Answer: A

**31.** An example of fibrous protein is :

A. Albumin

B. Keratin

C. Fibroin

D. Haemoglobin.

Answer: B

**32.** An example of a protein which acts as structural material is :

A. haemoglobin

B. Keratin

C. erepsin

D. oxytocin.

Answer: B

**33.** Protein is a polymer of :

A. Glucose

B. Terephthalic acid

C. Amino acid

D. Glycol.

Answer: C



**34.** Enzymes in the living systems :

A. provide energy

B. transport oxygen

C. catalyse biochemical reactions

D. provide immunity.

Answer: C

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35. Which is the nitrogen base present only in

RNA but not in DNA?

A. Uracil

B. Thymine

C. Guanine

D. adenine.

Answer: A

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**36.** The three dimensional structure of DNA was elucidated by :

A. James Watson

B. Franklin

C. M.Wilkins

D. Dalton.

Answer: A

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37. Which of the following is not present in

DNA?

# A. Adenine

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

## Answer: C



38. In nucleic acids, the nucleotides are joined

together by

A. peptide linkage

- B. phosphate group
- C. glycosidic linkage
- D. hydrogen bonds.

### Answer: B

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**39.** RNA is :

A. Single helix strand

B. Double helix strand

C. Triple helix strand

D. None of these.

Answer: A

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**40.** The chemical change in DNA molecule that could lead to synthesis of proteins with an altered amino acid sequence is called :

# A. Replication

- B. Lipid formation
- C. Cellular membrane
- D. Mutation .

### Answer: D



41. The pairs of bases in DNA are hled together

by:

A. ionic bonds

B. covalent bonds

C. phosphate group

D. hydrogen bonds.

Answer: D

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**42.** The sequence in which amino acids are linked to one another in a protein is called its :

- A. primary structure
- B. secondary structure
- C. tertiary structure
- D. quaternary structure

Answer: A

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43. The bond that determines the secondary

structure of a protein is :

- A. Coordinate bond
- B. Ionic bond
- C. Hydrogen bond
- D. Covalent bond.

Answer: C

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**44.** Structure of a DNA molecule is :

## A. Linear

- B. Branched
- C. Single helix
- D. Double helix .

## Answer: D

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# **45.** Eye disease is caused by the deficieny of vitamin :

**B. B** 

C. E

D. K.

Answer: A

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46. Vitamin C is chemically known as :

A. Tartaric acid

B. Citric acid

C. Ascorbic acid

D. Aspartic acid .

## Answer: C



47. lodine deficiency in diet causes :

A. goitre

B. rickets

C. beri-beri

D. night blindness.

Answer: A

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**48.** Which of the following contains cobalt ?

A. Vitamin C

B. Haemonglobin

C. Chlorophyll

D. Vitamin  $B_{12}$ .





**49.** Vitamin A is known as :

A. Axerophytol

B. Thiamine

C. Riboflavin

D. Pyridoxin.

Answer: A



**50.** Which of the following is a fat soluble vitamin ?

A. Vitamin A

B. Vitamin  $B_1$ 

C. Vitamin  $B_2$ 

D. Vitamin $B_6$ .

## Answer: A





# **51.** Deficieny of vitamin D leads to disease :

A. rickets

B. beri-beri

C. scurvy

D. night blindness.

#### **Answer: A**

**52.** The chemical passengers produced in

ductless glands are called :

A. Lipids

B. cellular membrane

C. hormones

D. antibodies.

Answer: C

53. Which of the following vitamins is

synthesised by sun rays ?

A. A

B. D

C. C

D. D.

Answer: B



**54.** The chemical name of vitamin  $B_1$  is :

A. Ascorbic acid

B. Riboflavin

C. Thiamine

D. Pyridoxine.

Answer: C

**55.** Cobalamine is :

A. Vitamin  $B_{12}$ 

B. Vitamin E

C. Vitamin  $B_2$ 

D. Vitamin K.

Answer: A

56. Vitamin E is known as :

A. adenine

B. Riboflavin

C. ascorbic acid

D. tocopherol.

Answer: D

# 57. Which vitamin gets destroyed on heating ?

**A.** E

B.C

C. K

D. A

Answer: D



58. Deficieny of vitamin E causes :

A. Beri-beri

B. Scurvy

C. Antifertility

D. None.

Answer: C

**59.** Which of the following is present in cod liver oil ?

A. Vitamin A

B. Vitamin C

C. Vitamin  $B_1$ 

D. Vitamin  $B_{12}$  .

Answer: A

**1.** Structurally, cellulose is a linear polymer of :

A.  $\beta$ -glucose molecules

- B. sucrose molecules
- C.  $\alpha$ -glucose molecules
- D. glucose and fructose molecules .

Answer: A

2. Insulin is secreted from :

A. Thyroid

**B.** Pancreas

C. Adrenal body

D. Cellular membrane.

**Answer: B** 

3. Lipases are enzymes that hydrolyse :

A. Carbohydrates

**B.** Fats

C. Proteins

D. Vitamins

Answer: B

**4.** The component of blood responsible for blood clotting is :

A. Fibrinogen

**B.** Globulins

C. Albumins

D. Blood platelets.

Answer: A

5. White blood cells act :

A. as defence against infection

B. as source of energy

C. for transport of molecular oxygen from

lunds to tissues

D. for blood clotting.

Answer: A

6. Carbohydrates are stored in the body as :

A. Glucose

B. Fructose

C. glycogen

D. Starch .

Answer: C

7. Which carbohydrate is an essential

constituent of plant cells ?

A. Starch

**B.** Sucrose

C. Cellulose

D. Maltose.

Answer: C

8. Amino acids are least soluble :

A. at p H 7

B. at their isoelectric points

C. at p H around 7

D. None of these.

Answer: D

**9.** Which of the following does not refer to the principal forms of carbohydrate present in our food ?

A. Cellulose

B. Starch

C. Sucrose

D. Fructose.

Answer: A

**10.** Write the energy currency of the cell.

A. ATP

B. ADP

C. AMP

D. Glycolysis.

Answer: A

**11.** pH of humen blood is

A. 2 to 4

B. 5 to 6.5

C. 7.2 to 7.5

D. 10 to 12.

Answer: C

**12.** The coenzymes are derived from :

A. Vitamins

B. Lipids

C. hormones

D. Carbohydrates.

Answer: A

**13.** Complete hydrolysis of starch gives :

A. only glucose

B. only sucrose

C. glucose and fructose

D. glucose and sucrose.

Answer: A

**14.** Vitamin C is called :

A. antiscurvy

B. antirachitic

C. antisterility

D. antioxidant.

Answer: A

15. Which of the following is vitamin?

A. Insulin

B. Ascorbic acid

C. Estrone

D. Alanine.

Answer: B

**16.** Starch is composed of :

A. amylose and glycogen

B. amylose and amylopectin

C. amylopectin and glycogen

D. glucose and glycogen.

Answer: B

17. Oxygen is carried away from lungs by blood

mainly because of the presence of :

A. Globulin

B. Collagen

C. Heme

D. Glutathion.

Answer: C

18. An example of a disaccharide made up of

two units of the same monosaccharides is :

A. Sucrose

B. Maltose

C. Lactose

D. Starch .

Answer: B

19. Belstein's test is used for the detection of :

A. saturated oils

**B.** sugars

C. Proteins

D. fats.

Answer: C



20. The metal ion present in haemoglobin and

is responsible for oxygen uptake is :

- A.  $Mg^{2+}$
- B.  $Fe^{3+}$
- $\mathsf{C.}\, Fe^{2\,+}$
- D.  $Co^{3+}$ .

#### **Answer: B**

21. The only vitamin with a metal atom in it is :

A. Vitamin A

B. Vitamin C

C. Vitamin D

D. Vitamin  $B_{12}$ .

Answer: D

**22.** Which of the following is an example of zwitter ion ?

A. Urea

B. Glycine hydrochloride

C. Ammonium acetate

D.  $\alpha$ -alanine.

Answer: D

23. Reducing sugar can reduce :

A. aldehydes to alcohols

B. ferric salts to ferrous salts

C. chlorates to chlorides

D. Fehling solution to cuprous oxide.

Answer: D

**24.** Which of the following is true about vitamains ?

A. Vitamins are secreted by ductles glands.

B. Vitamins are synthesised in an human body

C. Vitamins of the B group and vitamin C

are water soluble while vitamins A,D,E

and K are fat soluble.

D. Vitamins in the body are needed in very

large amounts.

Answer: C

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25. Guanine is held by three hydrogen bonds

with the base :

A. Thymine

B. Adenine

C. Cytosine

D. Uracil.

# Answer: C



# 26. The number of amino acids in insulin is :

A. 51

B. 61

C. 81

D. 101

Answer: A

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27. Invert sugar is mixture of

A. Glucose and fructose

B. Glucose and lactose

C. Glucose and maltose

D. Lactose and maltose.

## Answer: A



# 28. lpha - D(+) glucose and eta - D(+)

## glucose are :

A. enantiomers

- B. geometrical isomers
- C. epimers
- D. anomers.

## Answer: D



**29.** Which is correct ?

- A. Starch is polymer of  $\alpha$ -glucose.
- B. Amylose is a component of cellulose
- C. Proteins are composed of only one type

of amino acids.

D. In cyclic structure of furanose, there are

five carbons and one oxygen atom.

Answer: A

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**30.** Which statement is incorrect about peptide bond ?

A. C-N bond length in proteins is larger

than usual bond length of C-N bond.

B. Spectroscopic analysis shows planar structure of -CO - NH - group. C. C - N bond length in proteins is smaller than usual bond length of C-N bond. D. None of the above.

Answer: A

**31.** Chargoff's rule states that in an organism :

A. amount of adenine (A) is equal to that of

thymine (T) and the amount of guanine

is equal to that of cytosine (C).

B. Amount of adenine (A) is equal to that of

guanine (G) and the amount of thymine

(T) is equal to that of cytosine (C).

C. Amount of adenine (A) is equal to that of

guanine (G) and the amount of thymine

(T) is equal to that of guanine (G).

D. Amount of all bases are equal.

Answer: A

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**32.** Vitamin  $B_{12}$  contains:

A. Fe(II)

B. Co(III)

C. Zn(II)

# D. Ca(II)

Answer: B

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**33.** A sequence of how many nucleotides in messenger RNA makes a codon for an amino acid ?

A. three

B. four

C. one

D. two

Answer: A



**34.** Which functional group participates in disulphide bond formation in proteins ?

A. Thioester

B. Thioether

C. Thiol

D. Thiolactane.

# Answer: C



# 35. The cell membranes are mainly composed

of:

A. Fats

**B.** Proteins

C. Phospholipids

D. Carbohydrates.

# Answer: C



36. The human body does not produce :

A. Vitamins

B. Hormones

C. Enzymes

#### D. DNA.

Answer: A

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**37.** RNA and DNA are chiral molecules, their chirality is due to :

A. Chiral bases

B. Chiral phosphate ester units

C. D-sugar component.

D. L-sugar component.

Answer: C

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38. Which one of the following has maximum

laevorotatory nature ?

A. D-glucose

B. D-fructose

C. Sucrose

D. Invert sugar.

Answer: B

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**39.** Which of the following statements is not true ?

A. Pheromones are secreted outside the

body by the insects.

B. Aspirin is analgesic and antipyretic.

C. Sucrose is a dipeptide commonly known

as aspartame.

D. The DNA assists in the synthesis of RNA

molecules.

Answer: C

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**40.** A peptide hormone is :

A. Estrone

B. Testosterone

C. Insulin

D. Corticoid.

Answer: C

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**41.** Glycogen is a branched chain polymer of  $\alpha$ -D-glucose units in which chain is formed by  $C_1 - C_4$  glycosidic linkage whereas branching occurs by the formation of  $C_1 - C_6$  glycosidic linkage. Structure of glycogen is similar

to\_\_\_\_\_.

A. Amylose

B. Amylopectin

C. Cellulose

D. Glucose

**Answer: B** 

42. Which of the following polymer is stored in

the liver of animals ?

A. Amylose

B. Cellulose

C. Amylopectin

D. Glycogen

Answer: D

43. Sucrose (can sugar) is a disaccharide. One

molecule of sucrose on hydrolysis gives.

A. 2 molecules of glucose

B.2 molecules of glucose +1 molecule of

fructose

C.1 molecule of glucose +1 molecule of

fructose

D. 2 molecules of fructose

Answer: C

# 44. Which of the following acids is a vitamin ?

A. Aspartic acid

B. Ascorbic acid

C. Adipic acid

D. Saccharic acid

# Answer: B

**45.** Proteins are formed to have two different types of secondary structures viz,  $\alpha$ -helix and  $\beta$ -pleated sheet structure.  $\alpha$ -helix structure of protein is stabilized by :

A. Peptide bonds

B. van der Waals, forces

C. Hydrogen bonds

D. Dipole-dipole interactions

Answer: C

**46.** Which of the following reactions of glucose can be explained only by its cyclic structure ?

A. Glucose forms pentaacetate.

B. Glucose reacts with hydroxylamine to

form an oxime

C. Pentaacetate of glucose does not react

with hydroxylamine.

D. Glucose is oxidised by nitric acid to

gluconic acid.

Answer: C

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**47.** The relation between the nucleotide triplets and the amino acids is called :

A. Gene

B. Genetic code

C. Replication

D. Enzymes.

#### Answer: B



48. The chemical messangers produced in

ductless glands are called :

A. Lipids

B. cellular membrane

C. hormones

D. antibodies.

#### Answer: C



# **49.** The hormone which is secreted in the pancreas and controls the metabolism of glucose in the body is

A. thyroxine

B. oxytocin

C. Insulin

D. cortisone.

Answer: C

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**50.** Which of the following is a protein ?

A. Glycogen

B. Amylopectin

C. Keratin

D. Lecithin.

#### Answer: C



# 51. Which amino acid has no asymmetic carbon

atom ?

A. Histidine

B. Glycine

C.  $\alpha$ -Alanine

D. Threonin

Answer: B



52. Phospholipids are esters of glycerol with

A. three carboxylic acid residues

B. two carboxylic acid residues and one

phosphate group

C. one carboxylic acid residues and one

phosphate group

D. three phosphate group

Answer: B

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**53.** Which functional group participates in disulphide bond formation in proteins ?

A. Thioester

B. Thioether

C. Thiol

D. Thiolactone

Answer: C

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**54.** Cellulose is not digestible by human beings due to the absence of a cellulose hydrolysing enzyme called

# A. Cellulose

B. zymase

C. invertase

D. urease.

Answer: A

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**55.** In alkaline medium, alanine exists predominantly as

A. anion

B. zwitter ion

C. cation

D. covalent form.

Answer: A

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56. Glucose does not react with

A.  $Br_2 \,/\, H_2 O$ 

# $\mathsf{B}.\,H_2NOH$

# $\mathsf{C}.\,HI$

D.  $NaHSO_3$ 

## Answer: D

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# 57. Glucose and fructose can be distinguished

by

A. Lucas test

B. Ninhydrin test

C. Benedict reagent test

D. All the above

Answer: C

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**58.** Glucose when reduced with HI and red phosphorus gives

A. n-hexane

B. n-heptane

C. n-pentane

D. n-butane

Answer: A

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**59.** The segment of DNA which acts as the instrumental manual for the synthesis of the protein is :

A. Ribose

B. Gene

C. Nucleoside

D. Nucleotide.

Answer: B

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60. Which of the following hormones contains

iodine ?

- A. Testosterone
- B. Adrenaline
- C. Thyroxine
- D. Insulin.

Answer: C

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61. What is amino acid ?

 $\mathsf{A.}-COOH$ 

 $B. - NH_2$ 

#### $C. - CH_3$

D. both (A) and (B).

#### Answer: D

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#### 62. The reason for double helical structure of

DNA is operation of :

A. electrostatic attractions

B. van der Waals, forces

C. dipole -dipole interactions

D. hydrogen bonding

Answer: D

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63. Complete hydrolysis of cellulose gives :

A. L-glucose

B. D-fructose

C. D-ribose

D. D-glucose

#### Answer: D



64. Insulin production and its action in human

body are responsible for the level of diabetes.

This compound belongs to which of the

following categories ?

A. an enzyme

B. A hormone

C. A co-enzyme

D. An antibiotic.

Answer: B

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65. The base present in DNA, but not in RNA is

A. Guanine

B. Cytosine

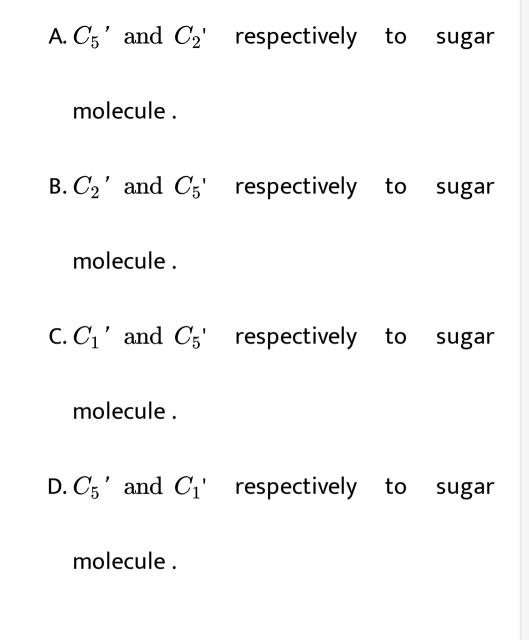
C. Uracil

D. Thymine.

Answer: C

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**66.** In both DNA and RNA, heterocyclic base and phosphate esters linkages are at :



#### Answer: C

# **67.** The two forms of D-Glucopyranose are called

A. Isomer

B. Anomer

C. Epimer

D. Enantiomer.

#### Answer: B

68. The pyrimidine bases present in DNA are :

- A. Cytosine and guanine
- B. Cytosine and thymine
- C. Cytosine and uracil
- D. Cytosine and adenine.

Answer: B

69. The secondary structure of a protein refers

to:

A. Hydrophobic interactions

B. Sequence of  $\alpha$ -amino acids

C. Fixed configuration of the polypeptide

backbone

D.  $\alpha$ -helical backbone.

Answer: C

**70.** Secondary structure of protein is mainly governed by

A. Hydrogen bonds

B. covalent bonds

C. Ionic bonds

D. Disulphide bonds

Answer: A

- **1.** The two functional groups present in a typical carbohydrate are :
  - A. -OH and -COOH
  - B. CHO and -COOH
  - $\mathsf{C.} > C = O \text{ and } OH$
  - D. OH and CHO

#### Answer: C





2. Biuret test is used for the detection of :

A. urea

**B.** Proteins

C. carbohydrates

D. polypeptide.

Answer: C

**3.** The presence or absence of hydroxy group on which carbon atom of sugar differentiates RNA and DNA ?

A.  $3^{rd}$ 

 $\mathsf{B.}\,4^{th}$ 

**C**. 1<sup>*st*</sup>

 $\mathsf{D.}\, 2^{nd}$ 

#### Answer: D



**4.** The change in optical rotation of a freshly prepared solution of glucose with time is called :

A. racemisation

B. specific rotation

C. mutarotation

D. tautomerism

Answer: C

5. Which of the following compounds can be

detected by Molisch's test ?

A. Primary alcohols

B. Nitro compounds

C. Sugars

D. Amines.

Answer: C

**6.** Which one of the following statements is correct?

A. All amino acids except glutamic acid are optically active.

B. All amino acids except lysine are optically acitve.

C. All amino acids are optically active.

D. All amino acids except glycine are otptically active.

Answer: D



**7.** During synthesis of 1 molecule of glucose in photosynthesis, the number ATP molecules consumed are

- A. 18 molecules of ATP
- B. 10 molecules of ATP
- C. 8 molecules of ATP
- D. 6 molecules of ATP.

Answer: A



# 8. Which of the following bases is not present

in DNA?

A. Quinoline

B. Adenine

C. Cytosine

D. Thymine.

Answer: A





# **9.** Which of the vitamins given below is water soluble ?

A. Vitamin C

B. Vitamin D

C. Vitamin E

D. Vitamin K.

# Answer: A

**Recent Examination Questions** 

**1.** A diabetic person carries a packet of glucose with him always, because

A. Glucose increase the blood sugar level slowly

B. Glucose reduces the blood sugar level

C. Glucose increase the blood sugar level

almost instantaneously

D. Glucose reduces the blood sugar slowly.

#### Answer: C

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2. The letter 'D' in D-glucose signifies :

A. configuration at all chiral carbons

B. dextrorotatory

C. that it is a monosaccharide

D. configuration at a particular chiral

carbon.

Answer: D

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3. Saccharin , an artificial sweetener , is

manufactured from

A. Cellulose

B. Toluene

C. Cyclohexane

D. Starch.

#### Answer: B



## 4. Sucrose is not a reducing sugar since

## A. It is chemically stable

B. it contains no free aldehyde or keto

group adjacent to a 屍 group

C. it is built up of a fructose unit

D. it is optically active.

Answer: B

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5. Glucose when reduced with HI and red

phosphorus gives

A. n-hexane

B. n-heptane

C. n-pentane

D. n-octane.

Answer: A

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6. The statement that is NOT correct is

A. aldose or ketose sugars in alkaline

medium do not isomerise

B. carbohydrates are optically acitve

C. penta acetate of glucose does not react

with hydroxylamine

D. lactose has glycosidic linkage between

 $C_4$  of glucose and  $C_1$  of galactose unit.

Answer: A

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7. Adenosine is an example of

A. Pyrimidine base

B. Nucleotide

C. Nucleoside

D. Purine base.

Answer: C

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8. Glycogen is

A. structurally very much similar to

amylopectin

B. a polymer of  $\beta$ -D glucose units

C. structurally similar to amylopectin but

extensively branched.

D. a structural polysaccharide.

Answer: C

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9. One of the following is an essential amino

acid.

# A. Isoleucine

- **B.** Tyrosine
- C. Serine
- D. Cysteine.

Answer: A



10. The sequence of bases on RNA molecules

synthesized on the GCATA strand of DNA is :

# A. CGUAU

#### B. CGTAT

#### C. TACGC

D. AYCGC.

Answer: A

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**11.**  $\alpha$ -helix and  $\beta$ - pleated structures of proteins are classified as :

- A. primary structure
- B. secondary structure
- C. tertiary structure
- D. quaternary structure

Answer: B

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**12.** Which statement is NOT TRUE for describing enzymes.

- A. They are polypeptides
- B. There are glycosidic linkages between

the molecules

- C. They are specific for a particular reaction
- D. They catalyze biological reactions.

Answer: B

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13. What are monosaccharides?

- A. glucose and maltose
- B. glucose and sucrose
- C. glucose and ribose
- D. none.

Answer: C