



CHEMISTRY

NCERT - FULL MARKS

CHEMISTRY(TAMIL)

BIOMOLECULES

Self Evaluation A Choose The Correct Answer

1. Which is a monosaccharide among the following?

A. Sucrose

B. Cellulose

C. Maltose

D. Glucose

Answer:



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2. Identify the reducing sugar.

A. Sucrose

B. Cellulose

C. Starch

D. Glucose

Answer:



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3. Sucrose is not

A. a di saccharide

B. a non-reducing sugar

C. hydrolysed to only glucose

D. hydrolysed to glucose & fructose

Answer:



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4. Sucrose contains glucose and fructose

linked by

A. $C_1 - C_1$

B. $C_1 - C_2$

C. $C_1 - C_4$

D. $C_1 - C_6$

Answer:



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5. Glucose is not oxidised to gluconic acid by

A. Br_2 / H_2O

B. Fehling solutions

C. Tollen's reagent

D. Conc. HNO_3

Answer:



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6. Inversion of sucrose refers to

A. oxidation of sucrose

B. reduction of sucrose

C. hydrolysis of sucrose to glucose and
fructose

D. polymerisation of sucrose.

Answer:



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7. The amino acid without chiral carbon is

A. Glycine

B. Alanine

C. Proline

D. Tyrosine

Answer:



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8. The building block of proteins are

A. α – hydroxy acids

B. α – amino acids

C. β – hydroxy acids

D. β – amino acids

Answer:



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9. Which is not true of amino acid ?

A. amino acid forms Zwitter ion

B. has isoelectric point

C. dual behaviours

D. amino acid is insoluble in NaOH solution

Answer:



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10. Two amino acids say A, B react to give

A. two dipeptides

B. three dipeptides

C. four dipeptides

D. only one

Answer:



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11. A dipeptide does not have

- A. two peptide units
- B. portions of two amino acids
- C. an amido group
- D. salt like structure

Answer:



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12. Proteins are not sensitive to

A. acids

B. bases

C. elevated temperature

D. water

Answer:



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13. Ultimate products of hydrolysis of proteins is

- A. aniline
- B. aliphatic acid
- C. amino acid
- D. aromatic acid

Answer:



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14. An example of a fatty acid obtained from a .cooking oil is

A. acetic acid

B. stearic acid

C. benzoic acid

D. oxalic acid

Answer:



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15. Alkaline hydrolysis of cooking oil gives

A. soap

B. glycerol

C. fatty acid

D. both (a) and (b)

Answer:



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16. Hair and nail contains

A. cellulose

B. fat

C. keratin

D. lipid

Answer:



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17. Important constituent of cell wall is

A. lipid

B. cellulose

C. protein

D. vitamin

Answer:



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Self Evaluation B Answer In One Or Two Sentences

1. What are carbohydrates ? Give two example.



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2. Give the structure of sucrose.



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3. What is starch? What are the ultimate hydrolysis products?



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4. What is the action of conc. HI on glucose?



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5. What is saponification ?



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Self Evaluation C Answer Not Exceeding Sixty Words

1. Outline the classification of carbohydrates giving example for each.(OR) How are carbohydrates classified?



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2. Are reducing sugars different from non reducing sugars? If answer is yes give reason.



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3. Distinguish glucose from fructose.



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4. Show the formation of a peptide bond with an equation. (OR) What is a peptide bond? Illustrate the formation of a peptide bond in glycyl alanine.



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5. Write about the preparation and properties of glucose.



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6. Draw the structure of α -D fructose furanose and β -D fructose furanose.



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Evaluation Choose The Correct Answer

1. Which one of the following rotates the plane polarized light towards left?

A. D(+) Glucose

B. L(+) Glucose

C. D(-) Fructose

D. D(+) Galactose

Answer: C



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

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

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

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

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

Answer: D



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

A. Glucose

B. Sucrose

C. maltose

D. Lactose

Answer: B



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4. 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



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5. In a protein, various amino acids linked together by

A. Peptide bond

B. Dative bond

C. α - Glycosidic bon

D. β - Glycosidic bond

Answer: A



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6. Among the following the achiral amino acid

is

A. 2-ethylalanine

B. 2-methylglycine

C. 2-hydroxymethylserine

D. Tryptophan

Answer: C



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7. The correct statement regarding RNA and DNA respectively is

A. the sugar component in RNA is an arabinos and the sugar component 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

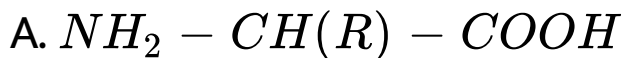
D. the sugar component in RNA is ribose and the sugar component in DNA is 2'-deoxyribose

Answer: D



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8. In aqueous solution of amino acids mostly exists in,



Answer: D



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9. Which one of the following is not produced by body?

A. DNA

B. Enzymes

C. Harmones

D. Vitamins

Answer: D



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10. The number of sp^2 and sp^3 hybridised carbon in fructose are respectively

A. 1 and 4

B. 4 and 2

C. 5 and 1

D. 1 and 5

Answer: D



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11. Vitamin B2 is also known as

- A. Riboflavin
- B. Thiamine
- C. Nicotinamide
- D. Pyridoxine

Answer: A



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12. The pyrimidine bases present in DNA are

- A. Cytosine and Adenine
- B. Cytosine and Guanine
- C. Cytosine and Thiamine
- D. Cytosine and Uraci

Answer: C



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13. Among the following L-serine is



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14. The secondary structure of a protein refers to

- A. fixed configuration of the polypeptide backbone
- B. hydrophobic interaction
- C. sequence of α – amino acids

D. α – helical backbone.

Answer: D



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15. Which of the following vitamins is water soluble?

A. Vitamin E

B. Vitamin K

C. Vitamin A

D. Vitamin B

Answer: B



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16. Complete hydrolysis of cellulose gives

A. L-Glucose

B. D-Fructose

C. D-Ribose

D. D-Glucose

Answer: D



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17. Which of the following statement is correct?

A. Ovalbumin 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: C



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18. Glucose is an aldose. Which one of the following 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 osazones
- D. It does not reduce tollens reagent

Answer: B



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

A. TACGAACT

B. TCCGAACT

C. TACGTACT

D. TACGRAGT

Answer: A



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20. Insulin, a hormone chemically is

A. Fat

B. Steroid

C. Protein

D. Carbohydrates

Answer: C



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

A. Epimers

B. Anomers

C. Enantiomers

D. Conformational isomers

Answer: B



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