



SHIKSHA CLASSES

Subject : Chemistry

BOARD ANSWER PAPER

Total Marks : 20

Class : XII

Topic: 14. Biomolecules

Section (A)

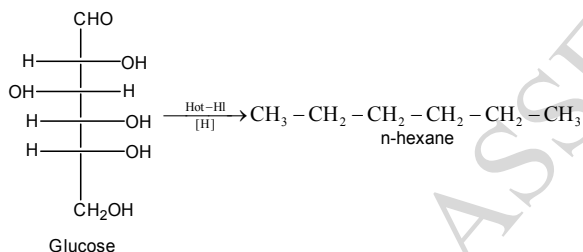
Q.1 : a) Select and write the most appropriate answer from given alternatives in each sub-question [5]

i) The correct representation molecular formula of Carbohydrate is

Ans. : (a): Molecular formula of carbohydrate
 $C_x (H_2O)_y$

ii) When Glucose is treated with hot HI it gives

Ans. : (c): n-hexane



iii) Which of the following is neutral amino acid

Ans.: a) Glycine



iv) Molecular formula for glucose is

Ans. : a) $C_6H_{12}O_6$

v) Sucrose on hydrolysis gives

Ans. : a) Glucose + Fructose

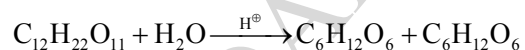
Q.1(b) : Very short answer type Question

[2]

i) What is the hydrolysis product of sucrose?

Ans. : Sucrose is dextrorotatory. On hydrolysis with dilute acid or an enzyme called invertase

sucrose gives equimolar mixture of glucose and fructose.



ii) What are peptide linkage?

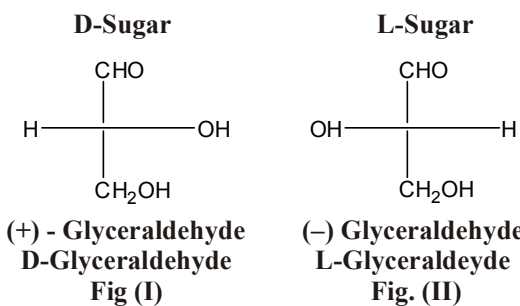
Ans. : "The bond or bonding between carbonyl and amine i.e. 'Amide linkage' is known as peptide linkage."

Section (B)

Q.2 : Answer the following question (Any three) [6]

i) What are carbohydrate? Explain D - & L - Sugars.

Ans: Carbohydrate : "Optically active polyhydroxy aldehyde or polyhydroxy ketones or the compounds that can be hydrolysed to polyhydroxy aldehyde or ketone is known as carbohydrate"



When hydroxyl group are on Right hand side of vertical line of carbohydrate is D-carbohydrate i.e. D-sugar

When hydroxyl group is attached to Left hand side of vertical line of carbohydrate is L-carbohydrate or L-sugar

ii) Give the preparation methods of gluconic Acid.

in the second glucose molecule.

∴ Maltose : (α -Anomer) =

α -D-Glucopyranose

α -D-Glucopyranose

ii) What are Nucleic acid? Explain with an example.

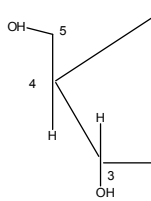
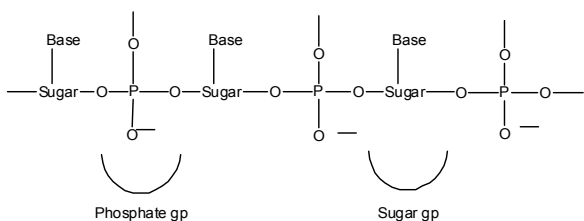
Ans : "The polynucleotide chain - polyester chain is the backbone of nucleic acid molecule, ester phosphoric acid with sugar containing chromosomes is known as Nucleic acid"

Two types of Nucleic acid

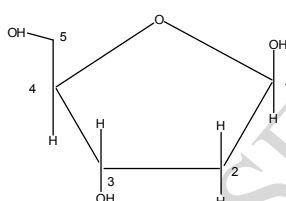
I) Ribonucleic acid (RNA)

II) Deoxyribonucleic acid (DNA)

The polynucleic acid is



β -D-ribose
RNA sugar



β -D-2-deoxy ribose
DNA - sugar

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