Q1 - 25 July - Shift 1

During the denaturation of proteins, which of these structures will remain intact ?

(A) Primary

(B) Secondary

(C) Tertiary

(D) Quaternary

Space for your notes:

Q2 - 25 July - Shift 2

Glycosidic linkage between C_1 of α-glucose and C_2 of β-fructose is found in

(A) maltose (B) sucrose

(C) lactose (D) amylose

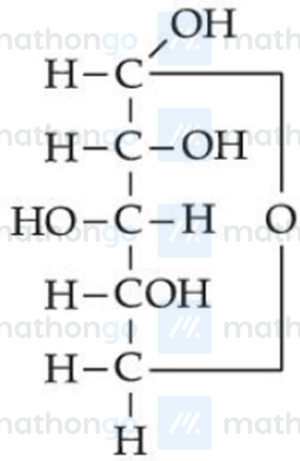
Space for your notes:

Q3 - 26 July - Shift 1

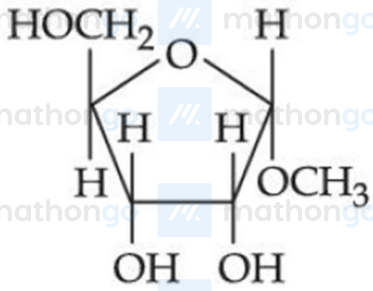
Which of the following is reducing sugar?

Space for your notes:

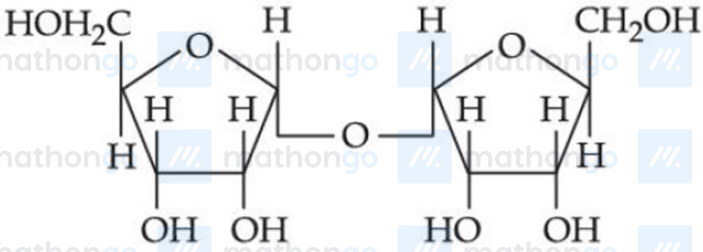
(A)



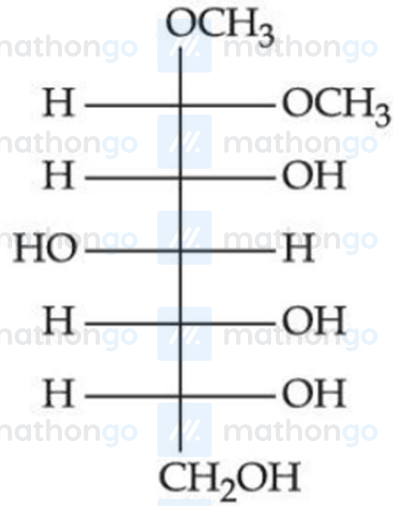
(B)



(C)



(D)



Q4 - 26 July - Shift 2

Animal starch is the other name of :

(A) amylose (B) maltose

(C) glycogen (D) amylopectin

Space for your notes:

Q5 - 27 July - Shift 1

A sugar 'X' dehydrates very slowly under acidic condition to give furfural which on further reaction with resorcinol gives the coloured product after sometime. Sugar 'X' is

(A) Aldopentose (B) Aldotetrose

(C) Oxalic acid (D) Ketotetrose

Space for your notes:

Q6 - 27 July - Shift 2

Match List-I with List-II

List-I

(A) Glucose + HI

(B) Glucose + Br_2 water

(C) Glucose + acetic anhydride

(D) Glucose + HNO_3

List-II

(I) Gluconic acid

(II) Glucose pentacetate

(III) Saccharic acid

(IV) Hexane

Choose the correct answer from the options given below:

(A) (A)-(IV), (B)-(I), (C)-(II), (D)-(III)

(B) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)

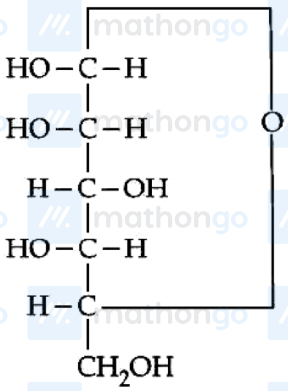
(C) (A)-(III), (B)-(I), (C)-(IV), (D)-(II)

(D) (A)-(I), (B)-(III), (C)-(IV), (D)-(II)

Space for your notes:

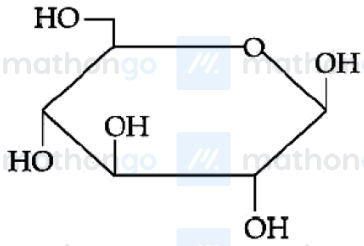
Q7 - 28 July - Shift 1

For the below given cyclic hemiacetal (X), the correct pyranose structure is :

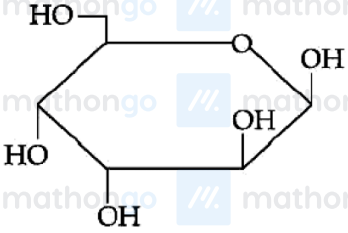


(X)

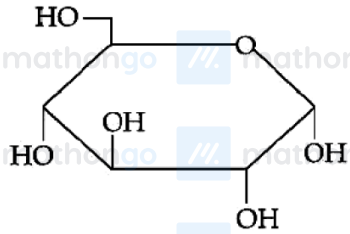
(A)



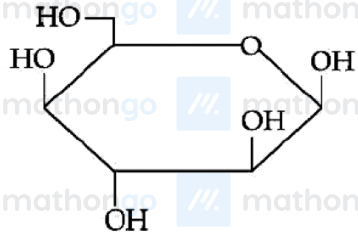
(B)



(C)



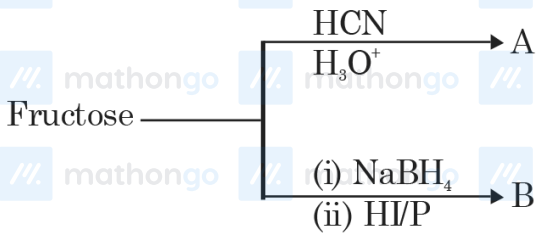
(D)



Space for your notes:

Q8 - 28 July - Shift 2

The formulas of A and B for the following reaction sequence are



(A) A = $C_7H_{14}O_8$, B = C_6H_{14}

(B) A = $C_7H_{13}O_7$, B = $C_7H_{14}O$

(C) A = $C_7H_{12}O_8$, B = C_6H_{14}

(D) A = $C_7H_{14}O_8$, B = $C_6H_{14}O_6$

Space for your notes:

Q9 - 29 July - Shift 1

In a linear tetrapeptide (Constituted with different amino acids), (number of amino acids) - (number of peptide bonds) is_____.

Space for your notes:

Q10 - 29 July - Shift 2

Given below are two statements. One is labelled as **Assertion A** and the other is labelled as **Reason R**.

Assertion A : Amylose is insoluble in water.

Reason R : Amylose is a long linear molecule with more than 200 glucose units.

In the light of the above statements, choose the correct answer from the options given below.

(A) Both **A** and **R** are correct and **R** is the correct explanation of A.

(B) Both **A** and **R** are correct and **R** is NOT the correct explanation of A.

(C) **A** is correct but **R** is not correct.

(D) **A** is not correct but **R** is correct.

Space for your notes:

Answer Key

Q1 (A) **Q2** (B) **Q3** (A) **Q4** (C)

Q5 (A) **Q6** (A) **Q7** (D) **Q8** (A)

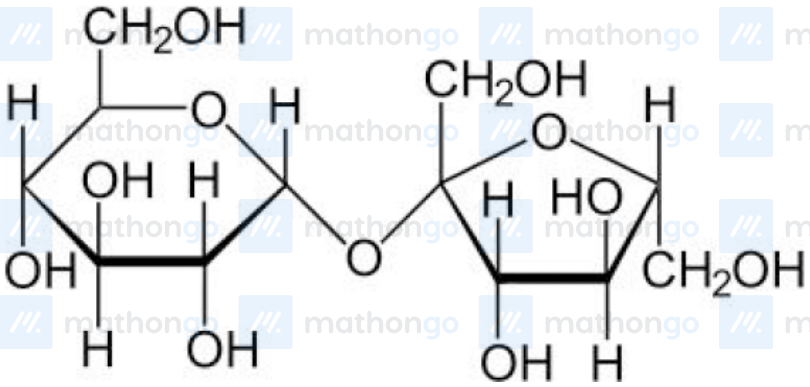
Q9 (1) **Q10** (D)

Q1 (A)

Primary structure remains intact during denaturation of proteins

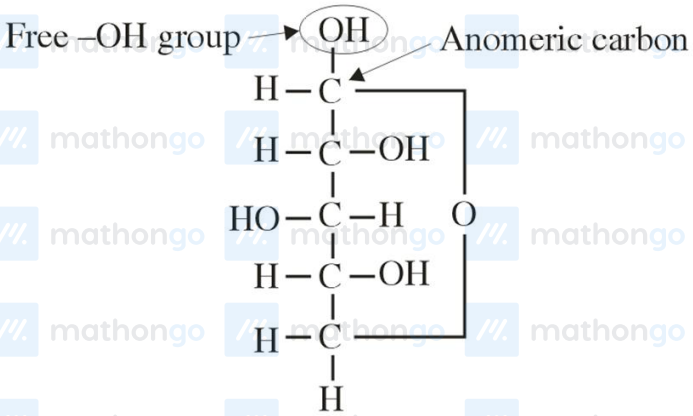
Q2 (B)

Theoretical



Q3 (A)

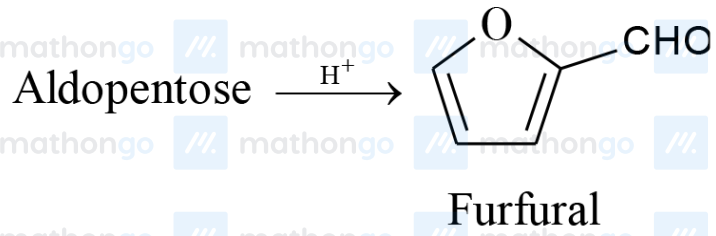
If any sugar is having free –OH group at anomeric carbon then it will be a reducing sugar



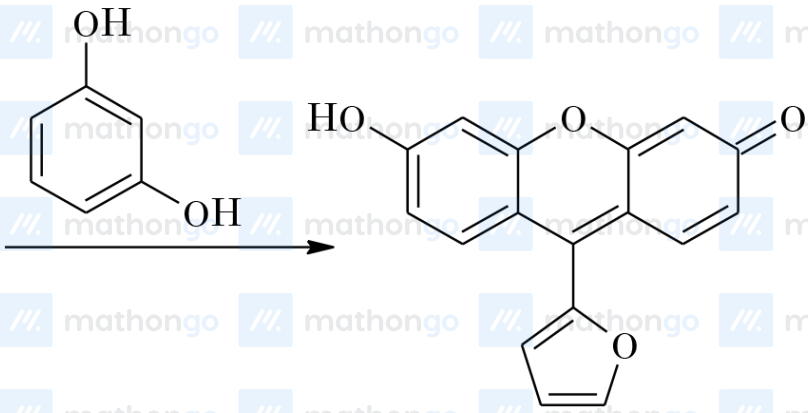
Q4 (C)

Glycogen

Q5 (A)



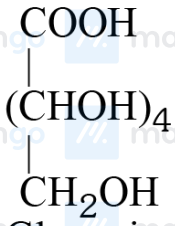
Furfural



Cherry red product
(seliwanoff's test)

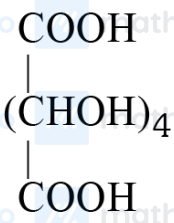
Q6 (A)

(A) $\text{Glucose} \xrightarrow{HI} \text{n-hexane}$

(B) $\text{Glucose} \xrightarrow[H_2O]{Br_2}$ 

Gluconic acid

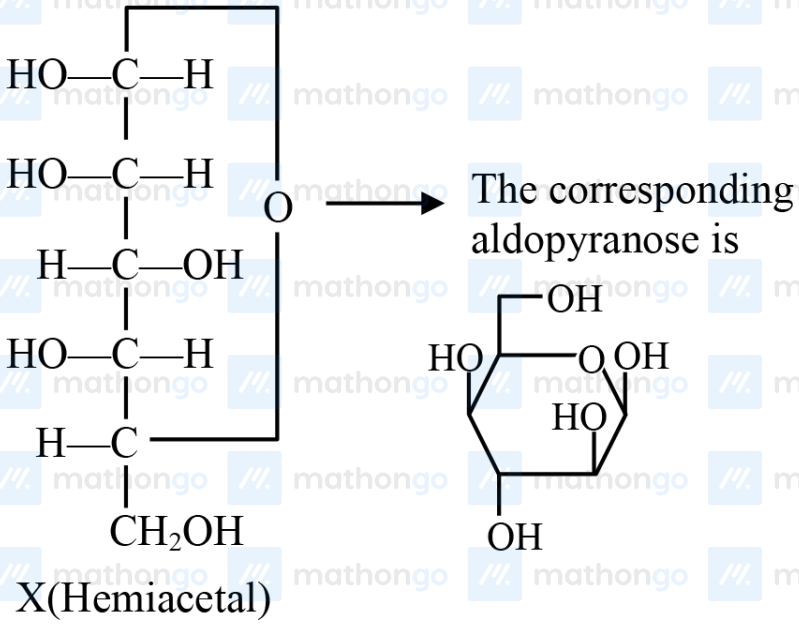
(C) $\text{Glucose} \xrightarrow[\text{anhydride}]{\text{5 acetic}} \text{Glucose pentacetate}$

(D) $\text{Glucose} \xrightarrow{HNO_3}$ 

Saccharic acid

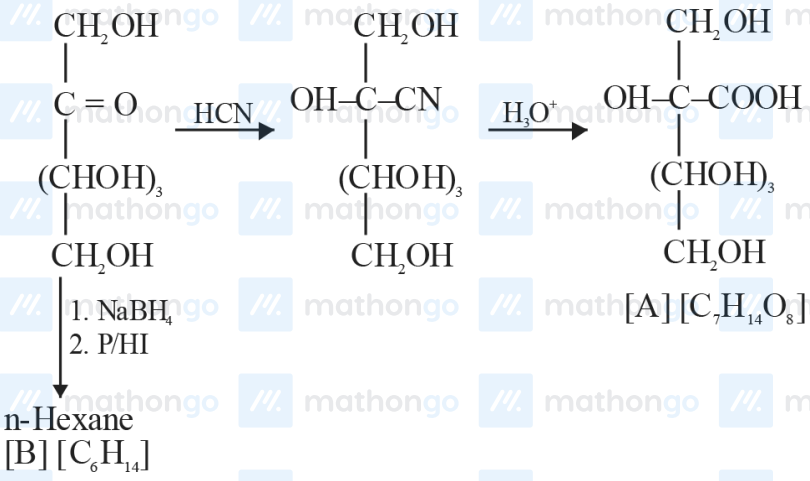
Q7 (D)

Correct pyranose structure is



X(Hemiacetal)

Q8 (A)



[A] $[C_7H_{14}O_8]$

n-Hexane

[B] $[C_6H_{14}]$

Q9 (1)

In Tetrapeptide,

No. of Amino Acids = 4

No. of Peptide bonds = 3

Hence

Ans. = 1

Q10 (D)

Amylose is water soluble.