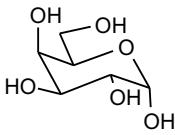
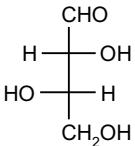
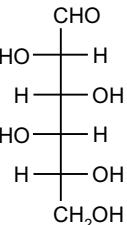
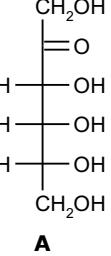
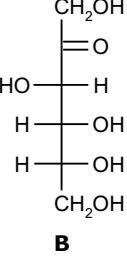
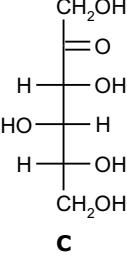
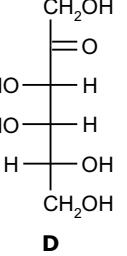
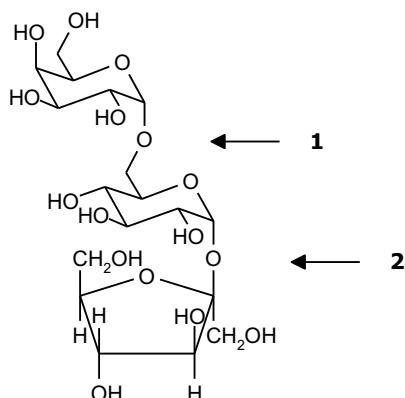


CARBOHYDRATE EXERCISE TEST

1)	Insert the missing words. The following structure represents a <u>(1)</u> and a <u>(2)</u> in series <u>(3)</u>
	 <p>A 1 = aldose, 2 = pyranose, 3 = α. B 1 = ketose, 2 = furanose, 3 = β. C 1 = ketose, 2 = furanose, 3 = α. D 1 = aldose, 2 = pyranose, 3 = β.</p>
2)	Indicate how many aldoses and ketoses, furanoses and pyranoses are present in maltose.
	<p>A 1 aldose, 1 ketose, 1 furanose, 1 pyranose. B 2 aldoses, 0 ketoses, 0 furanoses, 2 pyranoses. C 0 aldoses, 2 ketoses, 1 furanose, 1 pyranose. D 1 aldose, 1 ketose, 0 furanoses, 2 pyranoses.</p>
3)	Indicate in which carbon atom D-mannose is an epimer of D-glucose.
	<p>A 2-C. B 3-C. C 4-C. D It is not the epimer.</p>
4)	Indicate a sugar that has 3 stereocenters, considering only the open chain structure.
	<p>A D-Mannose. B D-Glucose. C D- Ribose. D D- Glyceraldehyde.</p>
5)	Indicate the type of monosaccharide shown in the figure.
	 <p>A D- Ketopentose. B L- Aldotetrose. C L- Aldohexose. D D- Aldopentose.</p>
6)	Indicare quanti aldoses e ketoses, furanosi e piranosi sono presenti nel cellobiosio.
	<p>A 1 aldose, 1 ketose, 2 furanoses, 0 pyranoses. B 2 aldoses, 0 ketoses, 1 furanose, 1 pyranose. C 2 aldoses, 0 ketoses, 2 furanoses, 0 pyranoses. D 2 aldoses, 0 ketoses, 0 furanoses, 2 pyranoses.</p>

7)	<p>Indicate the incorrect statement regarding D-glyceraldehyde.</p> <p>A It's a triose. B In Fischer's projection, the OH group bonded to the chiral center is on the right. C It is stereochemistry S. D It is an aldose.</p>
8)	<p>Indicate the relationship between α-D-fructofuranose and α-D-fructopyranose.</p> <p>A Epimers. B Enantiomers. C Diastereomers. D Structural isomers.</p>
9)	<p>Indicate in which carbon atom the D-idose, shown in the figure, is an epimer of D-glucose..</p> <p style="text-align: center;">  </p> <p>A 2-C. B 3-C. C 4-C. D It is not the epimer.</p>
10)	<p>Indicate how many aldoses and ketoses, furanoses, and pyranoses are present in lactose..</p> <p>A 2 aldoses, 0 ketoses, 2 furanoses, 0 pyranoses. B 0 aldoses, 2 ketoses, 2 furanoses, 0 pyranoses. C 2 aldoses, 0 ketoses, 0 furanoses, 2 pyranoses. D 0 aldoses, 2 ketoses, 0 furanoses, 2 pyranoses.</p>
11)	<p>Indicate which of the following compounds is D-fructose..</p> <p style="text-align: center;">  A </p> <p style="text-align: center;">  B </p> <p style="text-align: center;">  C </p> <p style="text-align: center;">  D </p>

12) Indicate the types of joints present in raffinose..



A **1** = 1→2; **2** = 1→4.
C **1** = 1→6; **2** = 1→2.

B **1** = 1→6; **2** = 1→6.
D **1** = 1→2; **2** = 1→6.

13) Indicate the molecular formula of gentiobiose, knowing that it is a reducing disaccharide that forms D-glucose upon hydrolysis.

A C₁₂H₂₄O₁₂.
D C₁₁H₂₀O₁₀.

B C₁₂H₂₂O₁₁.

C C₁₁H₂₂O₁₁.

14) Indicate the incorrect statement about D-glucose.

A It has a ketone group.

C It has four secondary alcohol groups.

B It has a primary alcohol group.

D It has six carbon atoms..