

B I O C H E M I S T R Y L A B Q U I Z

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QUIZ #3

NAME _____

1. If a simple sugar demonstrates 10 hydrogen atoms in its structure, then the carbohydrate can be described as a(n) _____.
 - A) aldose
 - B) hexose
 - C) disaccharide
 - D) ketose
 - E) pentose
2. The hemi-acetal structure displayed by an array of simple sugars forms during a reaction between a(n) _____ functional group and a(n) _____ functional group, both of which are part of the structure of the sugar.
 - A) alcohol -- alcohol
 - B) carboxylate -- alcohol
 - C) aldehyde -- ketone
 - D) alcohol -- aldehyde
 - E) carboxylate -- ketone
3. Sugars can often be successfully dehydrated by reacting them with _____.
 - A) ketones
 - B) copper ion
 - C) strong acids
 - D) furfural
 - E) disaccharides
4. Which type of carbohydrate produces a colored product when reacted with a mixture of I_2 and KI?
 - A) polysaccharide
 - B) ketose
 - C) monosaccharide
 - D) disaccharide
 - E) aldohexose
5. If a carbohydrate fails to react with a mixture of $CuSO_4$, Na_2CO_3 , and sodium citrate in a basic solution, then the carbohydrate is said to be a(n) _____.
 - A) ketose
 - B) disaccharide
 - C) aldose
 - D) non-reducing sugar
 - E) reducing sugar