Advanced Chemistry: Carbohydrates Wkst

Name:
Date:

1. The empirical formula for any monosaccharide is _____.

2. All monosaccharides are composed of two functional groups, they are _____.

3. When a monosaccharides formed a ring structure, the functional group associated with the anomeric carbon is called a(n) _____.

4. The major monosaccharides in our diets are _____ and _____.

5. Maltose contains an α-1→4 glycosidic linkage while lactose contains a β-1→4 linkage. Explain how these structures differs in terms of the glycosidic linkage.

6. When two monosaccharides bond together, the functional group that is created is called a(n) _____.

7. Structurally, what is the difference between starch and cellulose?

8. Explain the difference between a D- sugar and a L-sugar

9. Draw a Fischer projection model of D-Ribose and L-Ribose

10. What is the difference between ribose and 2-deoxyribose?

11. A aldose when exposed to an oxidizing agent produces a _____.

12. Amylopectin and glycogen are considered what type of carbohydrate? _____

13. The catalytic addition of one monosaccharide to another produces two products, name them.

14. Kinases are enzymes that catalytically add the functional group _____ to substrates such as sugars using _____ as the source of the functional group.