## 2017 Food Science-Carbohydrates

## **B** Division

## What is a pentose?

a.	An olig	osaccharide	produced	in	nlants
u.	All Olig	Coaccilariac	produced		piarits

- b. A monosaccharide with 5 carbon atoms
- c. A commonly used sugar free sweetener
- d. A complex carbohydrate that is required for human function

Which of the following is not true about galactose?

- a. Galactose is synthesized in the body
- b. Galactose is a monosaccharide
- c. Galactose is one of the monosaccharide that makes up the disaccharide lactose
- d. Galactose is much sweeter than glucose

Give the enzyme that is used in digestion of each of the following:

- 1. Starches
- 2. Maltose
- 3. Proteins
- 4. Lactose
- 5. Sucrose
- 6. Lipids

Which sugar(s) make(s) up sucrose?

What is the chemical formula for sucrose?

Which plant is used as a common source of sucrose?				
What is the following chemical reaction an example of?				
$C_{12}H_{22}O_{11} + H_2O \rightarrow C_6H_{12}O_6 + C_6H_{12}O_6$				
What is considered the "opposite" of the previous answer?				
Name two monosaccharides.				
Name one polyol.				
Name a starch.				
Given an equal amount of all of the following, which contains the highest fat content?				
a. Barley				
b. Spelt				
c. Sorghum				
d. Oats				
Name 5 cereal grains.				
What are "Ancient Grains"?				
Name 4 Ancient Grains.				
What is the chemical formula for maltose?				
What chemical test can be used to detect starch in a sample?				
What color does the sample turn if starch is present?				

True or False: Simple Carbohydrates raise blood glucose slower because there are easy to digest.

What enzyme in the mouth helps digest starches?

## BONUS/TIEBREAKER

Name the sugars that make up raffinose.

Identify the following sugars:

a.

b.

c.