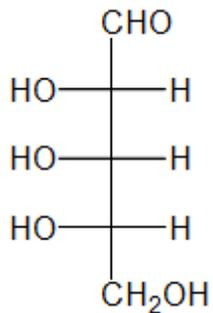
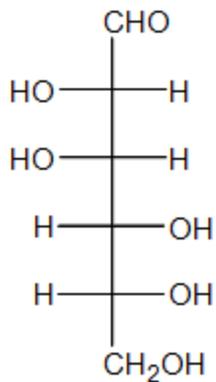


## More Carbohydrates

1. Using the structure of the following monosaccharide to answer the questions below:



- a. Is this a D or L sugar?
- b. Classify the sugar based on the carbonyl-containing functional group and number of carbon atoms?
- c. Is this a reducing sugar?
2. Using the structure of the following monosaccharide to complete the questions/problems below:



- a. Is this a D or L sugar?
- b. Classify the sugar based on the carbonyl-containing functional group and number of carbon atoms?

c. Is this a reducing sugar?

d. Draw the structure of the  $\beta$  anomer of the monosaccharide.

3. Match each of the following characteristics to amylose, amylopectin, glycogen, or cellulose. A specific characteristic may apply to more than one polysaccharide.

a. Contains both  $\alpha(1 \rightarrow 4)$  and  $\alpha(1 \rightarrow 6)$  glycosidic bonds

b. Contains only  $\beta(1 \rightarrow 4)$  glycosidic bonds

c. Composed of glucose monosaccharide units

d. Classified as straight-chain polysaccharide

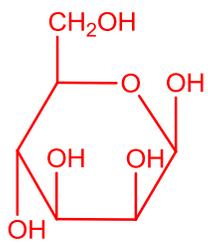
## Answers

1.

- a. L
- b. aldopentose
- c. Yes

2.

- a. D
- b. aldohexose
- c. Yes
- d.



3.

- a. amylopectin, glycogen
- b. cellulose
- c. amylose, amylopectin, glycogen, cellulose
- d. amylose, cellulose