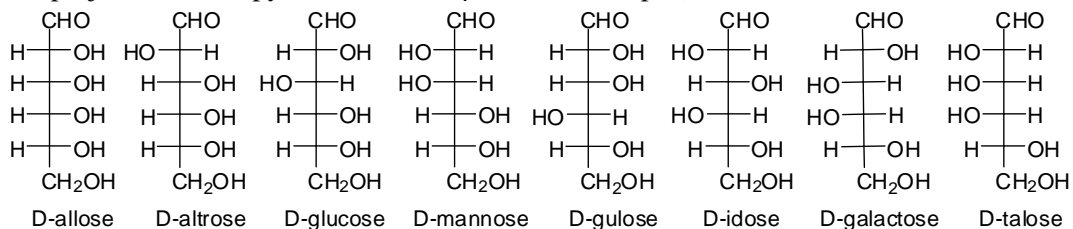
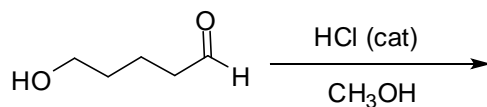


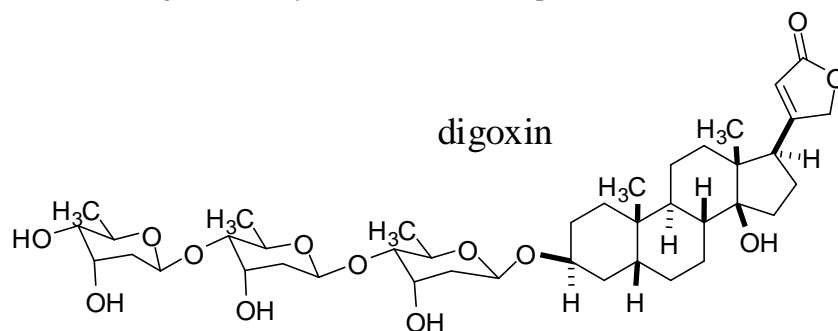
1. Draw a Haworth projection of the pyranose form of β -D-talose. (2 pts.)



2. Draw the product of the following reaction. (2 pts.)



3. The structure of digoxin, the widely used heart medication, is shown below. Answer the questions about digoxin based on the structure and your understanding of carbohydrate structures. (2 pts.)



a) Digoxin has a _____ carbohydrate piece.

(i) monosaccharide (ii) disaccharide (iii) trisaccharide (iv) tetrasaccharide (v) pentasaccharide

b) The saccharides in digoxin are....(circle ALL correct answers).

(i) C-2 and C-6 deoxy (ii) β -1 \rightarrow 3 linked (iii) β -2 \rightarrow 5 linked (iv) C-1 and C-5 deoxy (v) β -1 \rightarrow 4 linked