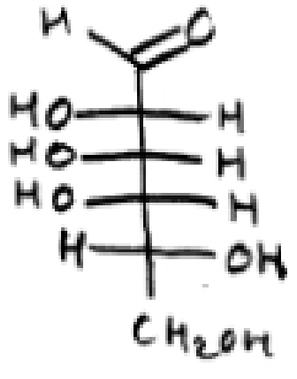
Quiz 10 Questions

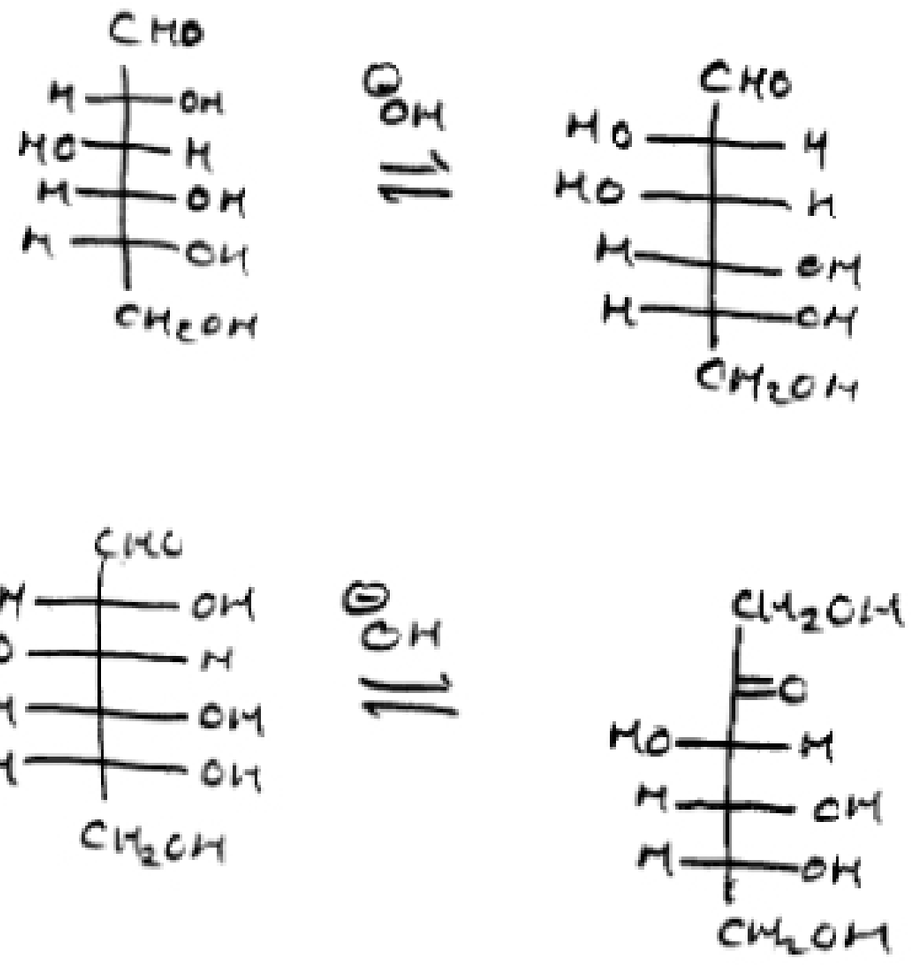
I.) Draw the following enantiomers or derivatives of D-talose as Fischer projections:

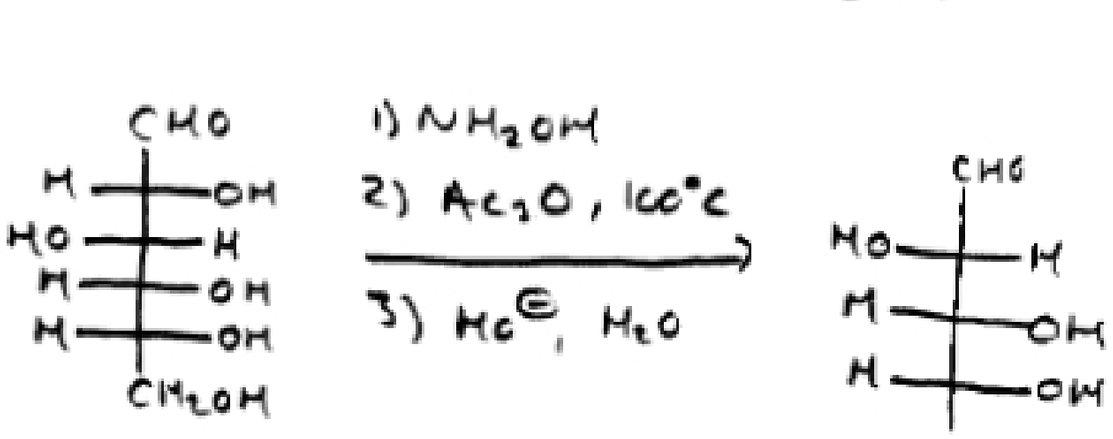


D-talose

1) C-2 epimer
2) enantiomer
3) osazone
4) aldonic acid
5) alditol
6.) Wohl degradation product
7) Kiliani-Fischer synthesis product.

II.) Draw the mechanism:





III.) Identify the monosaccharide:

1) a) MW = 180.16

b) Forms the same osazone as D-gulose

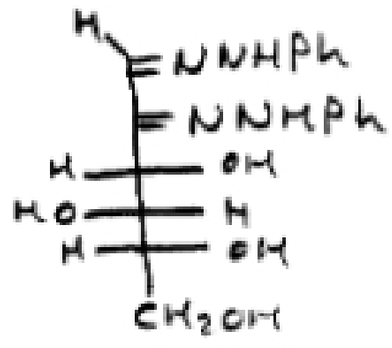
c) Gives negative test with Br_2

2) a) It is an ketopentose.

b.) Its reduction product (aldital) is a mixture of D-xylitol and D-lyxitol.

3) a.) A 1M solution of D-idose (10mL) when mixed with 10mL of a 1M solution of the unknown saccharide fails to rotate plane-polarized light.

4.) a.) Gives the following osazone:

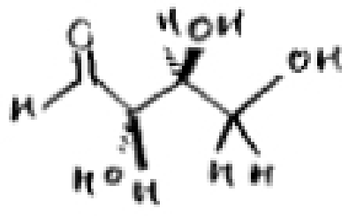


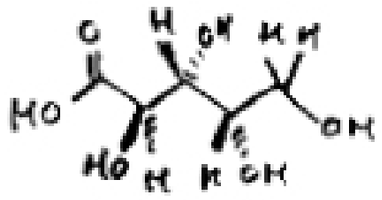
b.) Gives a positive Br_2 test.

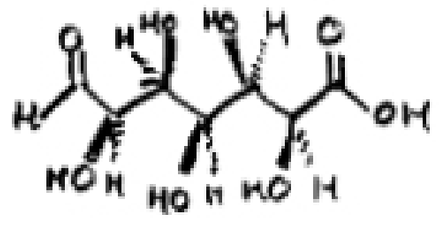
c) Gives the same compound when the CHO group is reduced and the primary alcohol is oxidized to CHO.

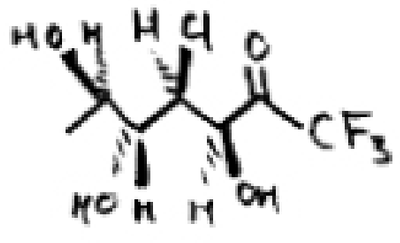
(2 answers)

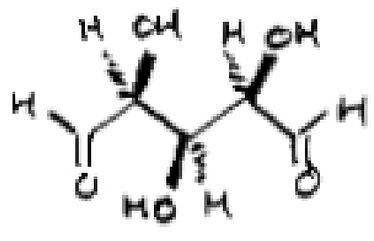
IV.) Draw Fischer projections of these molecules:











V.) Draw stick drawing of the following molecules: