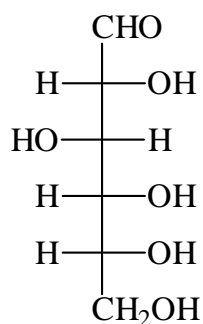
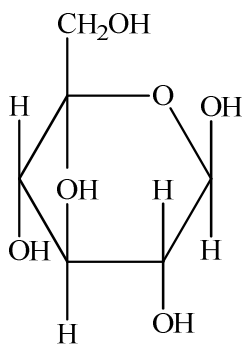


The open chain form of D-glucose has the structure shown.

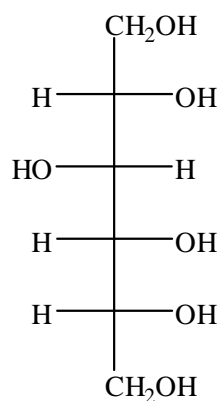


Draw the Haworth projection of β -D-glucopyranose.

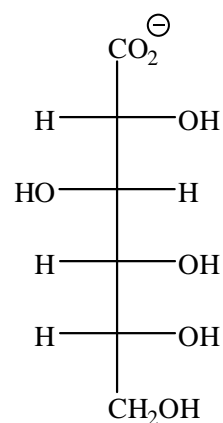


Draw the major organic product of the reaction of D-glucose with the following reagents.

1. NaBH_4 2. $\text{H}^+ / \text{H}_2\text{O}$



$[\text{Ag}(\text{NH}_3)_2]^\oplus / \text{OH}^\ominus$



Would you expect D-glucose to be water soluble? Why?

D-glucose will be water soluble as it has numerous alcohol functional groups which can hydrogen bond with the water molecules.

**Marks
5**