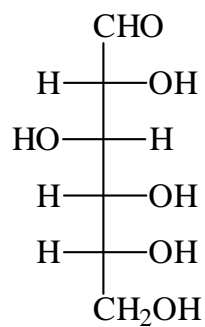


The open chain form of D-glucose has the structure shown.



Draw the Haworth projection of  $\beta$ -D-glucopyranose.

**Marks**  
**5**

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

1.  $\text{NaBH}_4$     2.  $\text{H}^{\oplus} / \text{H}_2\text{O}$

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

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