• The elimination of H_2O from alcohol **A** can form the isomeric alkenes **B** and **C**. Elimination of HBr from the alkyl halide **D** can generate the same two alkenes.

Marks 7

A OH conc.
$$H_2SO_4$$
 heat B C

Assign the absolute configuration of alcohol A. Show your working.

Name compound **B** fully.

A diastereoisomer of $\bf B$ is also formed in these reactions. Draw the enantiomer of $\bf A$ and the diastereoisomer of $\bf B$.

enantiomer of A	diastereoisomer of B

Propose a mechanism for the formation of **B** from **A** under the conditions shown. Use curly arrows and draw the structures of any intermediates.