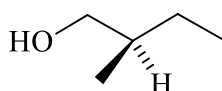


**Marks**  
**8**

- Consider compound **A**, whose structure is shown below.

**A**

List the substituents on the stereogenic (chiral) carbon in compound **A**, in descending order as determined by the sequence rules.

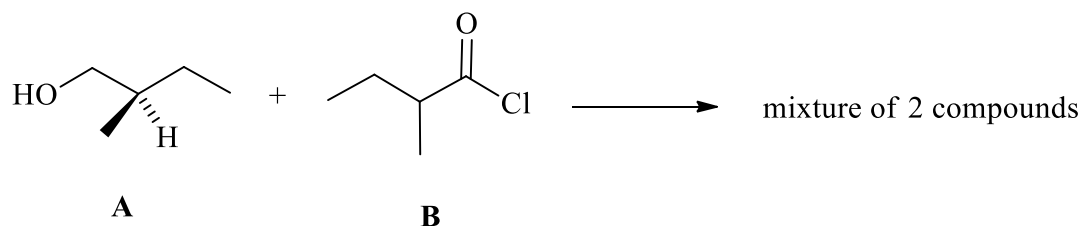
Highest priority

Lowest priority

|  |  |  |  |
|--|--|--|--|
|  |  |  |  |
|--|--|--|--|

Give the full name that unambiguously describes the stereochemistry of compound **A**.

When compound **A** is reacted with racemic compound **B**, two compounds are formed as shown below.



Circle the stereogenic centre in compound **B**.

Draw the stick structures of the two compounds formed in this reaction. Make sure you clearly show all of the stereochemistry in your structures.

Are the two compounds formed in this reaction enantiomers, constitutional isomers or diastereoisomers?