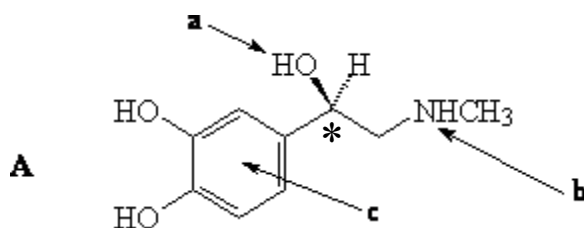


- Adrenaline (**A**) is produced by the body as part of its “flight or fight” response.

Marks
6



- On the above diagram, clearly mark the stereogenic centre in (**A**) with an asterisk (*).
- List the substituents attached to the stereogenic centre in descending order of priority according to the sequence rules.

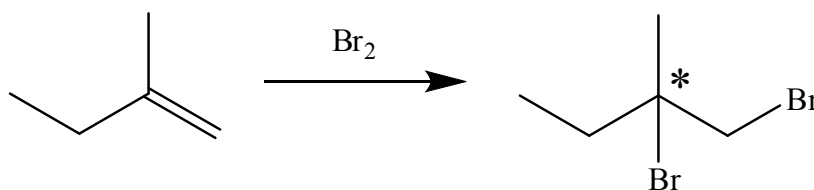
highest priority		lowest priority	
OH	CH₂NHCH₃	aromatic ring	H
(iii) What is the absolute stereochemistry of adrenaline (A)? Write (<i>R</i>) or (<i>S</i>).			(<i>R</i>)

- Name the functional groups **a**, **b** and **c**, present in adrenaline (**A**)?

a = alcohol
b = amine
c = aromatic

- Give the stick representation of the product formed when bromine reacts with 2-methylbutene.

2



State whether the product formed by this reaction is *achiral*, the (*S*)-*enantiomer*, the (*R*)-*enantiomer*, a *meso-compound* or a *racemic mixture*?

There is a single stereogenic centre in the product. Although addition of Br₂ is stereospecific, either enantiomer can be formed: a racemic mixture