## Q1.

A two-step preparation of propylamine is shown.

bromoethane  $\rightarrow X \rightarrow$  propylamine

What is X?

- A CH<sub>3</sub>CH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub>
- B CH<sub>3</sub>CH<sub>2</sub>CN
- C CH<sub>3</sub>CH<sub>2</sub>CH<sub>2</sub>Br
- D CH<sub>3</sub>CH<sub>2</sub>NH<sub>2</sub>

(Total 1 mark)

## Q2.

2-Methylbutylamine can be synthesised from an alkene.

Alkene Halogenoalkane ethanolic KCN Nitrile Halogenoalkane NH<sub>2</sub>

What is the identity of the alkene?

- A But-2-ene
- B Methylpropene
- C 2-Methylbut-1-ene
- D 2-Methylbut-2-ene

(Total 1 mark)