## ORGANIC (B)

1 Complete this table with the names and structures of some hydrocarbons.

| Displayed<br>formula | H H H H | H H C C C L H H | H H H H H H H H H H H H H H H H H H H |
|----------------------|---------|-----------------|---------------------------------------|
| Name                 | butane  | ethene          | propene                               |

- 2 Define the following terms.
  - a hydrocarbon compound containing hydrogen and carbon only
  - **b** unsaturated **contains double bond(s)**
- 3 Octane is an alkane containing 8 carbon atoms. Give its molecular formula.
  C<sub>8</sub>H<sub>18</sub>
- 4 Butene reacts with bromine water.
  - a Describe what you would see in this reaction. goes from yellow-orange to colourless
  - **b** Complete the equation for this reaction.

**c** Butene can be formed by the cracking of tetradecane ( $C_{14}H_{30}$ ). Describe how this cracking is done and write a balanced equation for this cracking of tetradecane to form butene and one alkane.

how cracking is done vaporise and pass over hot catalyst OR mix with steam at high temperature

equation  $C_{14}H_{30} \rightarrow C_4H_8 + C_{10}H_{22}$ 

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