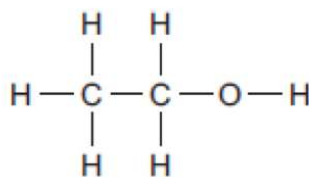


0 1

This question is about ethanol.

Figure 1 shows the displayed structure of ethanol.

Figure 1



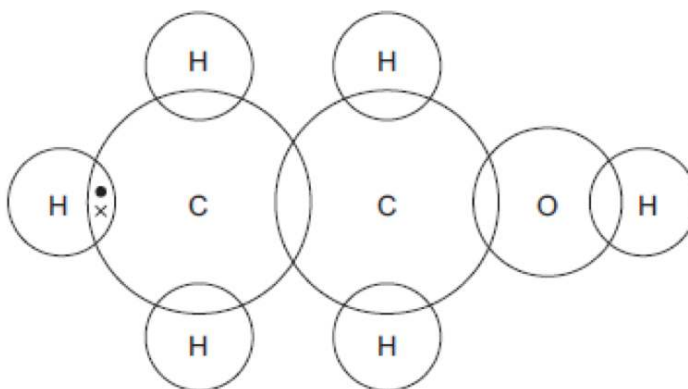
0 1

1

Complete the dot and cross diagram in **Figure 2** to show the bonding in ethanol. Show the outer shell electrons only.

[2 marks]

Figure 2



0 2

The names, structures and boiling points of ethanol and two other alcohols are shown in **Table 1**.

Table 1

Name	Methanol	Ethanol	Propanol
Structure	$ \begin{array}{c} \text{H} \\ \\ \text{H}-\text{C}-\text{O}-\text{H} \\ \\ \text{H} \end{array} $	$ \begin{array}{c} \text{H} \quad \text{H} \\ \quad \\ \text{H}-\text{C}-\text{C}-\text{O}-\text{H} \\ \quad \\ \text{H} \quad \text{H} \end{array} $	$ \begin{array}{c} \text{H} \quad \text{H} \quad \text{H} \\ \quad \quad \\ \text{H}-\text{C}-\text{C}-\text{C}-\text{O}-\text{H} \\ \quad \quad \\ \text{H} \quad \text{H} \quad \text{H} \end{array} $
Boiling point in °C	65	78	97

0 2

1

Use your knowledge of structure and bonding to suggest why the boiling points increase as the number of carbon atoms increases.

[3 marks]

.....

.....

.....

.....

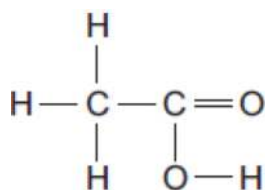
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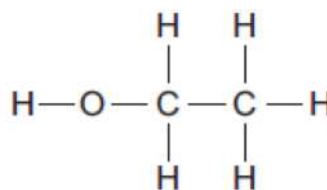
3

The diagrams represent two compounds, A and B.

Compound A



Compound B



Compound B is an alcohol.

0

3

1

Name compound B.

[1 mark]

.....

Use the correct answer from the box to complete the sentence.

burned

decomposed

oxidised

0

3

2

To form compound A,

compound B is

[1 mark]

(Total 7 marks)

End