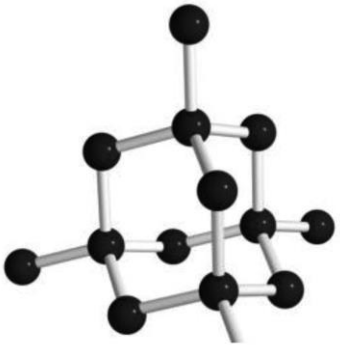
GCSE Chemistry A (Gateway Science)

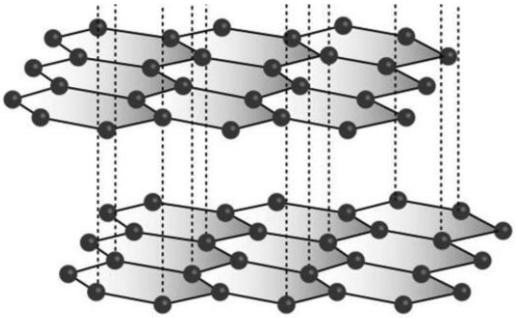
J248/01 Chemistry A C1-C3 and C7 (Foundation Tier)

Question Set 13

1 **(a)** The diagrams show the structures of two forms of carbon.



diamond



graphite

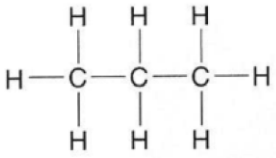
- Graphite is a good conductor of electricity.
- Diamond does **not** conduct electricity.

Use ideas about structure and bonding in diamond and graphite to explain these observations.

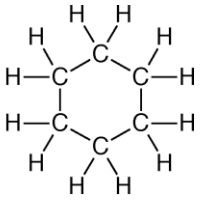
[3]

(b) Carbon can form many thousands of different compounds.

Two examples are shown below.



propane



cyclohexane

Why can carbon form many thousands of different compounds?

[1]

(c) Ethanol contains carbon.

Look at some information about ethanol.

- Melting point = –114 °C
- Boiling point = 78 °C

Predict the state of ethanol at 25 °C. How can you tell?

[2]

Total Marks for Question Set 13: 6