

AQA - Chemical bonds, ionic, covalent and metallic – GCSE Chemistry Paper 1

1. June/2021/Paper_1H/No.1(1.1)

0 1

This question is about carbon and its compounds.

Fullerenes are molecules of carbon atoms.

The first fullerene to be discovered was Buckminsterfullerene (C₆₀).

0 1 . 1

What shape is a Buckminsterfullerene molecule?

[1 mark]

2. June/2021/Paper_1F/No.8(8.3),(8.6)

0 8 . 3

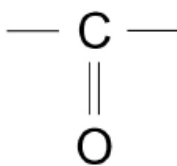
Complete **Figure 14** to show a propanone molecule.

Use a line to represent each single bond.

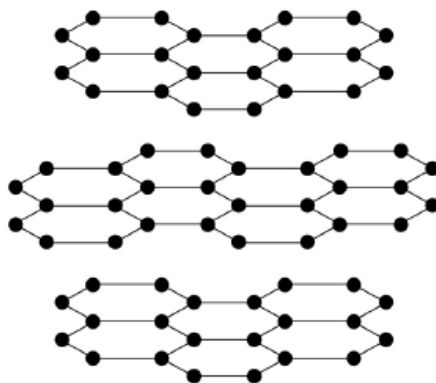
Use **Figure 13**.

[1 mark]

Figure 14



0 8 . 6

Figure 15 represents the structure of graphite.**Figure 15**

Explain why graphite is:

- a good electrical conductor
- soft and slippery.

You should answer in terms of structure and bonding.

[6 marks]

3. June/2021/Paper_1F/No.8(8.1,8.5)

0 8

This question is about carbon and its compounds.

Fullerenes are molecules of carbon atoms.

The first fullerene to be discovered was Buckminsterfullerene (C_{60}).

0 8 . 1

What shape is a Buckminsterfullerene molecule?

[1 mark]

0 8 . 5

Propanone is a liquid with a low boiling point.

Why does propanone have a low boiling point?

[1 mark]

Tick (✓) **one** box.

The covalent bonds are strong.

The covalent bonds are weak.

The intermolecular forces are strong.

The intermolecular forces are weak.

4. June/2021/Paper_1H/No.1(1.3),(1.6)

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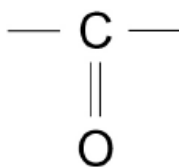
 Complete **Figure 2** to show a propanone molecule.

Use a line to represent each single bond.

Use **Figure 1**.

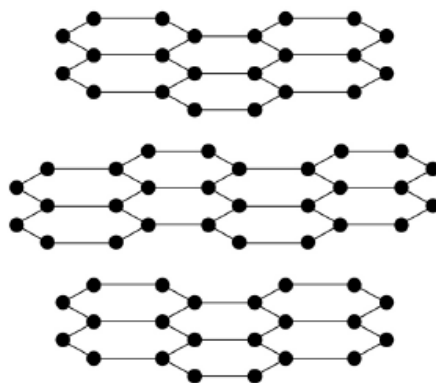
[1 mark]

Figure 2



0 1 . 6 Figure 3 represents the structure of graphite.

Figure 3



Explain why graphite is:

- a good electrical conductor
- soft and slippery.

You should answer in terms of structure and bonding.

[6 marks]
