

AQA - Structure and bonding – GCSE Combined Science Chemistry1. **May/2020/Paper_8464/1F/No.7.4-7.6**

What is the number of bonds formed by each carbon atom in diamond?

[1 mark]Tick (✓) **one** box.2 3 4 8 Give **two** physical properties of diamond.**[2 marks]**

1 _____

2 _____

Name **two** other substances with giant covalent structures.**[2 marks]**

1 _____

2 _____

2. May/2020/Paper_8464/1H/No.2.4-2.6

What is the number of bonds formed by each carbon atom in diamond?

[1 mark]

Tick (✓) **one** box.

2

3

4

8

Give **two** physical properties of diamond.

[2 marks]

1 _____

2 _____

Name **two** other substances with giant covalent structures.

[2 marks]

1 _____

2 _____

3. Jun/2019/Paper_8464/1F/No.5.4

Table 3 shows the electronic structure of hydrogen and oxygen.

Table 3

Element	Electronic structure
Hydrogen	1
Oxygen	2,6

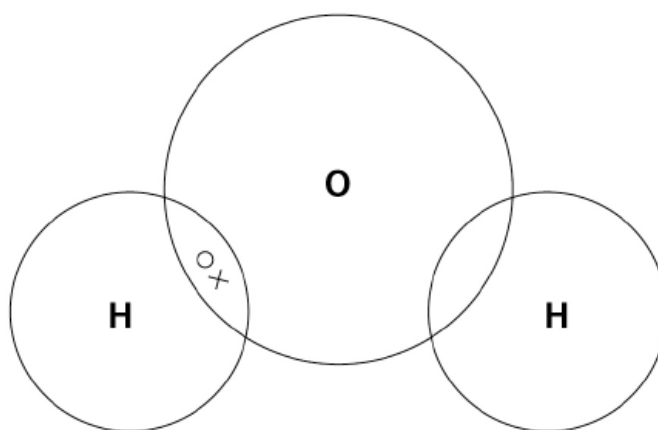
Figure 5 shows part of a dot and cross diagram of a molecule of water (H_2O).

Complete the dot and cross diagram.

You should show only the electrons in the outer energy levels.

[2 marks]

Figure 5



4. Jun/2019/Paper_8464/1F/No.5.5

Oxygen and sulfur are examples of simple molecules.

Complete the sentence.

Choose the answer from the box.

[1 mark]

covalent	ionic	metallic
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There are _____ bonds between the atoms of oxygen in an oxygen molecule.

