

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

1. June/2021/Paper_1H/No.4

0 4

Carbon can exist in a number of different structures.

0 4 . 1

The first fullerene to be discovered was Buckminsterfullerene.

What is the formula of Buckminsterfullerene?

[1 mark]Tick (✓) **one** box.C₄₀C₅₀C₆₀C₇₀

0 4 . 2

Graphite is a form of carbon.

Explain why graphite conducts electricity.

[2 marks]

Steel is an alloy of iron and carbon.

0 4 . 3 Explain why steel is harder than iron.

[3 marks]

0 4 . 4 Iron is alloyed with carbon and other metals to make stainless steel.

A stainless steel fork contains 71.92% iron.

Table 2 shows the mass of each element in the fork.

Table 2

Element	Iron	Carbon	Chromium	Nickel
Mass of element in g	X	0.05	10.44	5.80

Calculate the mass of iron (X) in the fork.

[4 marks]

X = _____ g