

Chemical bonds, ionic, covalent and metallic – GCSE Chemistry Paper 11. **No.4**

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Carbon can exist in a number of different structures.

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The first fullerene to be discovered was Buckminsterfullerene.

What is the formula of Buckminsterfullerene?

[1 mark]Tick (✓) **one** box.C₄₀☐C₅₀☐C₆₀☐C₇₀☐

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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