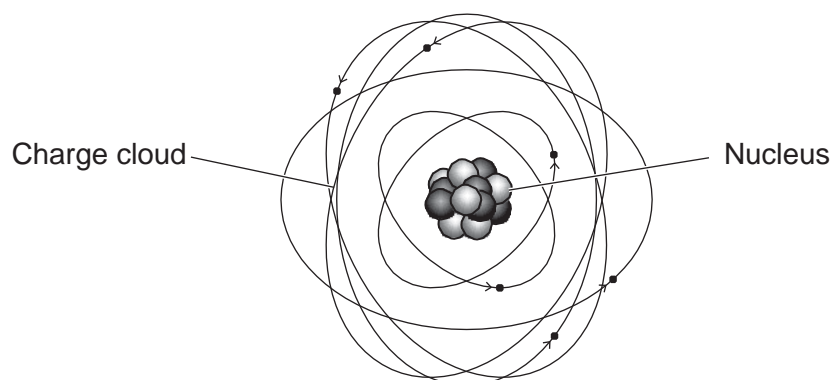


**GCSE Chemistry A (Gateway Science)**

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

**Question Set 20**

1 Look at the diagram of an atom.



(a) Which particles are present in the charge cloud?

electron

[1]

(b) Which two particles make up the nucleus?

.....proton..... and .....neutron.....

[1]

(c) Most of the mass of an atom is in the nucleus.

Explain why.

Because both proton and neutron with a mass of 1 each are present in nucleus and electron has a negligible mass (1/1840) compared to protons and neutrons.

[2]

(d) Look at these two atoms of chlorine.



What is the relationship between these two atoms of chlorine?

Explain your answer.

They are isotopes where the number of protons (and electrons) are the same but the mass is different due to difference in the number of neutrons.

[2]

**Total Marks for Question Set 20: 6**

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