

GCSE Chemistry A (Gateway Science)

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

Question Set 12

1 Look at **Table 1.1**.

It shows information about some atoms and ions.

Particle	Atomic number	Mass number	Number of protons	Number of neutrons	Number of electrons	Electronic structure
A	11	23	11	.....	11	2.8.1
B	9	19	9	10	9	.....
C	.....	37	17	.....	17	2.8.7
D	13	27	.....	.....	10	2.8

Table 1.1

(a) **Complete** the missing information in **Table 1.1**. [4]

(b) Particle **A** is a **metal atom**, particle **D** is an **ion**.

Explain why.

[2]

(c) Element **C** has the electronic structure 2.8.7.

What does this electronic structure tell you about the position of element **C** in the periodic table?

Explain your answer.

[4]

(d) Complete the table below to give information about protons, neutrons and electrons.

	Charge	Mass in atomic mass units
proton	.....	1
neutron	.....	.....
electron	negative	.....

[2]

(e) Rutherford was a scientist who helped to develop the atomic model.

State how Rutherford's work contributed to the development of the atomic model.

[1]

Total Marks for Question Set 12: 13

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