

1.1 – ATOMIC STRUCTURE – PPQ1



Name Form

1) a) Complete the following table.

(2)

	Relative mass	Relative charge
Proton		
Electron		

b) An atom of element **Q** contains the same number of neutrons as are found in an atom of ^{27}Al . An atom of **Q** also contains 14 protons.

i) Give the number of protons in an atom of ^{27}Al

ii) Deduce the symbol, including mass number and atomic number, for this atom of element **Q**. (3)

c) Define the term *relative atomic mass* of an element.

.....

..... (2)

d) The table below gives the relative abundance of each isotope in a mass spectrum of a sample of magnesium.

<i>m/z</i>	24	25	26
Relative abundance (%)	73.5	10.1	16.4

Use the data above to calculate the relative atomic mass of this sample of magnesium. Give your answer to one decimal place.

.....

.....

..... (2)

e) State how the relative molecular mass of a covalent compound is obtained from its mass spectrum.

.....

..... (1)