Practise: Structure of the Atom – AQA A-Level Chemistry

Mr Cole Science
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Q1.

(a) Complete the following table for the particles in the nucleus.

Particle	Relative charge	Relative mass
proton		
neutron		

(2)

Q2.

(a) Complete the following table.

	Relative mass	Relative charge
Neutron		
Electron		

(2)

Q3.

(a) Define the term *atomic number*.

_____

(1)

Q4.

(a) State the meaning of the term *mass number*.

_____

_____

(1)

Q5.

(a) Atoms of tungsten include ^{182}W and ^{186}W

(i) Deduce the number of protons in ^{182}W

_____

(1)

(ii) Deduce the number of neutrons in ^{186}W

_____

(1)

Q6.

(a) **Table 1** shows some data about fundamental particles in an atom.

Table 1

Particle	proton	neutron	electron
Mass / g	1.6725×10^{-24}	1.6748×10^{-24}	0.0009×10^{-24}

An atom of hydrogen can be represented as ^{1}H

Use data from **Table 1** to calculate the mass of this hydrogen atom.

_____

(Total 1 mark)

Q7.

This question is about chromium and its compounds.

(a) An atom has 2 more protons and 3 more neutrons than an atom of ^{52}Cr.

Deduce the symbol, including the mass number and the atomic number, for this atom.

_____

(Total 1 mark)

Q8.

Which atom has one more proton and two more neutrons than $^{31}_{15}P$?

A $^{33}_{16}P$ ⬭

B $^{34}_{16}P$ ⬭

C $^{33}_{16}S$ ⬭

D $^{34}_{16}S$ ⬭

(Total 1 mark)