

Periodicity – AS 2022 Chemistry P1

1. *June/2022/Paper_7404/1/No.10*

An atom has all its electrons in their lowest energy levels.

Which atom contains only two unpaired electrons?

[1 mark]

A Helium

B Beryllium

C Oxygen

D Iron

2. *June/2022/Paper_7404/1/No.11*

The first six ionisation energies, in kJ mol^{-1} , of an element are:

1090, 2350, 4610, 6220, 37 800, 47 000

What is the element?

[1 mark]

A Boron

B Carbon

C Nitrogen

D Oxygen

3. June/2022/Paper_7404/1/No.12

In which pair is the first ionisation energy of atom Y greater than that of atom X?

[1 mark]

	Electron configuration of atom X	Electron configuration of atom Y	
A	$1s^2 2s^2$	$1s^2 2s^2 2p^1$	<input type="checkbox"/>
B	$1s^2 2s^2 2p^3$	$1s^2 2s^2 2p^4$	<input type="checkbox"/>
C	$1s^2 2s^2 2p^5$	$1s^2 2s^2 2p^6$	<input type="checkbox"/>
D	$1s^2 2s^2 2p^6$	$1s^2 2s^2 2p^6 3s^1$	<input type="checkbox"/>