

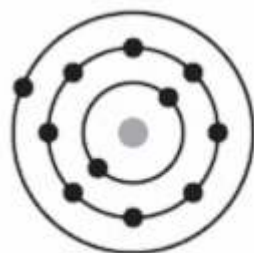
Curriculum Aligned Competency Based Test Items

Science

Class 9 – Chapter 4

Structure of the Atom

The pictures show the arrangement of electrons in the shells of different atoms.



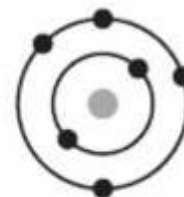
Atom 1



Atom 2



Atom 3



Atom 4

SAS21S090401

1 Which two atoms have the same valency?

- A. Atom 1 and Atom 2
- B. Atom 2 and Atom 3
- C. Atom 3 and Atom 4
- D. Atom 4 and Atom 1

SAS21S090402

2 Which atom has the highest atomic number?

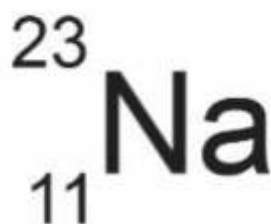
- A. Atom 1
- B. Atom 2
- C. Atom 3
- D. Atom 4

SAS21S090403

3 What is the maximum number of electrons that can be present in the **first** shell of an atom?

- A. 1
- B. 2
- C. 4
- D. 8

The picture shows the symbol for sodium.



SAS21S090404

4 What does the number 23 represent for sodium?

SAS21S090405

5 What can be concluded about sodium from the symbol?

- A. It contains 11 neutrons.
- B. It contains 12 protons.
- C. It contains 12 neutrons.
- D. It contains 34 electrons.

SAS21S090406

6 Which of these statements about the **isotopes** of an element is correct?
Circle 'Yes' or 'No' for the correct response.

Is the statement correct?	Yes or No
The isotopes have the same chemical properties.	Yes / No
The isotopes have the same number of neutrons.	Yes / No
The isotopes have the same number of electrons.	Yes / No

SAS21S090407

7 Which of the following atoms are **isobars**?

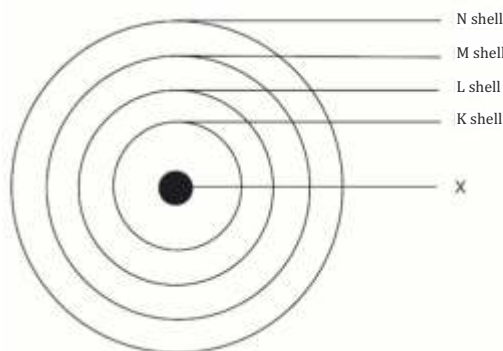


SAS21S090408

8 What would be the valency of an element that is **chemically inactive**?

- A. 0
- B. 1
- C. 2
- D. 5

The outer boundary of Zone 1 is made of solid structures in the shape of isosceles triangles of the same size and barbed wires.



SAS21S090409

9 What does X represent in the atomic model?

SAS21S090410

10 Which scientist proposed this atomic model?

- A. Neils Bohr
- B. J. Chadwick
- C. J.J. Thomson
- D. Ernest Rutherford