

Name of the Student: _____

Max. Marks : 22 Marks

Time : 22 Minutes

Q1.

Which row correctly shows general trends in properties across Period 3?

	Atomic radius	First ionisation energy	
A	Decreases	Increases	☐
B	Decreases	Decreases	☐
C	Increases	Increases	☐
D	Increases	Decreases	☐

(Total 1 mark)

Q2.

Consider the Period 3 elements from sodium to chlorine.

Which statement is correct?

- A Sodium has the smallest atomic radius. ☐
- B Aluminium has the highest melting point. ☐
- C Sulfur is the most electronegative. ☐
- D Chlorine has the highest first ionisation energy. ☐

(Total 1 mark)

Q3.

Which statement is **not** correct about the Period 3 elements sodium to chlorine?

- A Sodium has the largest atomic radius. ☐
- B Sodium has the lowest melting point. ☐
- C Silicon has the highest melting point. ☐
- D Chlorine has the highest first ionisation energy. ☐

(Total 1 mark)

Q4.

Which block in the Periodic Table contains the element samarium (Sm)?

A d block

☐

B f block

☐

C p block

☐

D s block

☐

(Total 1 mark)

Q5.

Which statement is correct about the Group 1 elements?

A The Cs^+ ion has a more negative enthalpy of hydration than the Rb^+ ion.

☐

B The enthalpy of atomisation for potassium is greater than the enthalpy of atomisation for sodium.

☐

C The melting point of potassium is higher than the melting point of sodium.

☐

D The second ionisation energy of rubidium is lower than the second ionisation energy of lithium.

☐

(Total 1 mark)

Q6.

Which element is classified as a d block element?

A Antimony

☐

B Molybdenum

☐

C Strontium

☐

D Uranium

☐

(Total 1 mark)

Q7.

Which element in Period 3 has the highest melting point?

A Aluminium

☐

B Silicon

☐

C Sodium

☐

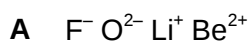
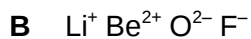
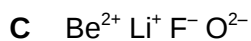
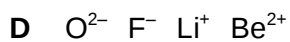
D Sulfur

☐

(Total 1 mark)

Q8.

Which represents the correct order of increasing radius of the ions?

☐☐☐☐

(Total 1 mark)

Q9.

Which element has a first ionisation energy lower than that of sulfur?

A Chlorine

☐

B Oxygen

☐

C Phosphorus

☐

D Selenium

☐

(Total 1 mark)

Q10.

Which ion has the largest radius?

☐☐☐☐

(Total 1 mark)

Q11.

Which of these elements has the highest melting point?

A Argon

☐

B Chlorine

☐

C Silicon

☐

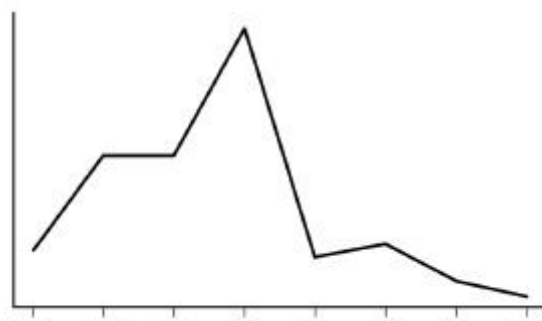
D Sulfur

☐

(Total 1 mark)

Q12.

The diagram shows how a property of Period 3 elements varies across the period.



What is the property?

- A** Atomic radius ☐
- B** Electronegativity ☐
- C** First ionisation energy ☐
- D** Melting point ☐

(Total 1 mark)

Q13.

Which of these Period 3 elements has the highest melting point?

- A** Aluminium ☐
- B** Phosphorus ☐
- C** Sodium ☐
- D** Sulfur ☐

(Total 1 mark)

Q14.

Which element has the highest first ionisation energy?

- A** Aluminium ☐
- B** Phosphorus ☐
- C** Silicon ☐
- D** Sulfur ☐

(Total 1 mark)

Q15.

Which is the correct order of melting points of these Period 3 elements?

- A** phosphorus > sulfur > chlorine > argon ☐

- B** argon > chlorine > phosphorus > sulfur ☐
- C** sulfur > phosphorus > chlorine > argon ☐
- D** chlorine > phosphorus > sulfur > argon ☐

(Total 1 mark)

Q16.

Which is the correct classification for the element yttrium (Y)?

- A** s block ☐
- B** p block ☐
- C** d block ☐
- D** f block ☐

(Total 1 mark)

Q17.

Which element is in the f-block of the Periodic Table?

- A** Palladium ☐
- B** Phosphorus ☐
- C** Platinum ☐
- D** Plutonium ☐

(Total 1 mark)

Q18.

Which of the following is a correct statement about the trend in atomic radius across Period 3 of the Periodic Table?

- A** radius increases because the atoms have more electrons ☐
- B** radius decreases because nuclear charge increases ☐
- C** radius increases because shielding (screening) increases ☐
- D** radius decreases because shielding (screening) decreases ☐

(Total 1 mark)

Q19.

Which elements are shown in increasing order of the stated property?

- A** Atomic radius: phosphorus, sulfur, chlorine. ☐
- B** First ionisation energy: sodium, magnesium, aluminium. ☐
- C** Electronegativity: sulfur, phosphorus, silicon. ☐
- D** Melting point: argon, chlorine, sulfur. ☐

(Total 1 mark)

Q20.

Which element is in the d-block of the Periodic Table?

- A** Selenium ☐
- B** Antimony ☐
- C** Tantalum ☐
- D** Lead ☐

(Total 1 mark)

Q21.

Which of these elements has the highest second ionisation energy?

- A** Na ☐
- B** Mg ☐
- C** Ne ☐
- D** Ar ☐

(Total 1 mark)

Q22.

Which one of the following statements is correct?

- A** The first ionisation energies of the elements in Period 3 show a general decrease from sodium to chlorine.
- B** The electronegativities of Group 2 elements decrease from magnesium to barium.
- C** The strength of the intermolecular forces increases from hydrogen fluoride to hydrogen chloride.
- D** The ability of a halide ion to act as a reducing agent decreases from fluoride to iodide.

(Total 1 mark)