These questions are about the Period 3 elements and their compounds:

- sodium (Na)
- magnesium (Mg)
- aluminium (Al)
- silicon (Si)
- phosphorus (P)
- sulfur (S)
- chlorine (Cl)
- argon (Ar)

1. What is the trend in atomic radii across Period 3?
   
   A. The atomic radii decrease across the period
   B. The atomic radii increase across the period
   C. The atomic radii decrease across the period to Group 4 then start increasing
   D. The atomic radii increase across the period to Group 4 then start decreasing
2 What is the trend in ionic radii across Period 3?

A The ionic radii decrease across the period to Group 4 then start increasing

B The ionic radii increase across the period to Group 4 then start decreasing

C The ionic radii decrease across the period to Group 4 then increase sharply before decreasing again

D The ionic radii increase across the period to Group 4 then decrease sharply before increasing again

3 Which element in Period 3 has the highest melting point?

A Sodium

B Aluminium

C Silicon

D Phosphorus

4 Which element in Period 3 is the best electrical conductor?

A Sodium

B Magnesium

C Aluminium

D Silicon

5 How many elements in Period 3 have a giant molecular structure?

A 1

B 3

C 4

D 5
6. What is the formula of the oxide of silicon?
   A. SiO
   B. SiO₂
   C. Si₂O
   D. Si₂O₃

7. Which element in Period 3 has the highest 1st ionisation energy?
   A. Sodium
   B. Silicon
   C. Sulfur
   D. Argon

8. Which oxide of a Period 3 element is amphoteric?
   A. Magnesium oxide
   B. Aluminium oxide
   C. Phosphorus(V) oxide
   D. Sulfur(VI) oxide

9. How many of the oxides of Period 3 elements will conduct electricity when molten?
   A. 1
   B. 3
   C. 5
   D. 7
10 Which gas is given off when phosphorus(V) chloride reacts with water?

A Chlorine
B Hydrogen
C Oxygen
D Hydrogen chloride