

Unit 9: Inorganic chemistry

Subunit 9.2: Periodicity of chemical properties of the elements in Period 3

Topical Question No: 1

13 Which oxide is insoluble in aqueous sodium hydroxide?

- A** MgO **B** Al_2O_3 **C** P_4O_{10} **D** SO_2

Topical Question No: 2

14 X, Y and Z are three elements in the third period.

- X reacts with chlorine to give a liquid product.
- Y reacts with chlorine to give a solid product that dissolves in water to give a solution of pH 7.
- Z reacts with chlorine to give a solid product that dissolves in water to give a solution of pH 6.

Which elements are good conductors of electricity?

- A** X and Y **B** Y and Z **C** Y only **D** Z only

Topical Question No: 3

13 X and Y are oxides of different Period 3 elements.

If one mole of Y is added to water, the solution formed is neutralised by exactly one mole of X.

What could be the identities of X and Y?

	X	Y
A	Al_2O_3	P_4O_{10}
B	Al_2O_3	SO_3
C	Na_2O	P_4O_{10}
D	Na_2O	SO_3

Answer Key

1. Error
2. Error
3. Error