

22 Four metal oxides are listed.

- 1 Al_2O_3
- 2 CaO
- 3 CuO
- 4 ZnO

Which metal oxides are amphoteric?

- A** 1 and 4 **B** 1 only **C** 2, 3 and 4 **D** 2 and 3 only

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21 Phosphorus is an element in Group V of the Periodic Table.

It burns in air to form an oxide that dissolves in water to form a solution with a pH of 1.

Which row describes this oxide of phosphorus?

	metal oxide	non-metal oxide	acidic oxide	basic oxide	
A	✓	✗	✓	✗	key ✓ = yes ✗ = no
B	✓	✗	✗	✓	
C	✗	✓	✓	✗	
D	✗	✓	✗	✓	

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25 Which metal oxide reacts with aqueous sodium hydroxide to form a salt and water?

- A** calcium oxide
B copper(II) oxide
C sodium oxide
D aluminium oxide

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20 Which three oxides are **all** acidic?

- A** CaO , NO_2 , SO_2
B CaO , CO_2 , Na_2O
C CO_2 , NO_2 , SO_2
D CO_2 , Na_2O , SO_2

20 Which row identifies an acidic oxide, a basic oxide and an amphoteric oxide?

	acidic	basic	amphoteric
A	ZnO	SO_2	Al_2O_3
B	SO_2	Al_2O_3	Na_2O
C	ZnO	Al_2O_3	SO_2
D	SO_2	Na_2O	Al_2O_3

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23 Element E is a metal in Group I of the Periodic Table and element G is a non-metal in Group VII. Both of these elements form oxides.

Which statement about their oxides is correct?

- A** Both oxides are acidic.
B Both oxides are basic.
C The oxide of E is acidic and the oxide of G is basic.
D The oxide of G is acidic and the oxide of E is basic.