

Paper 3

Questions are applicable for both core and extended candidates

- 1 This question is about compounds of nitrogen.
- (c) State whether nitrogen dioxide is an acidic or basic oxide.

Give a reason for your answer.

.....

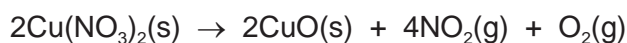
..... [1]

Paper 4

**Questions are applicable for both core and extended candidates
unless indicated in the question**

2 Copper is element 29 in the Periodic Table.

(e) Copper(II) oxide is formed when copper(II) nitrate, $\text{Cu}(\text{NO}_3)_2$, is heated.



(i) State the class of oxide to which copper(II) oxide belongs.

..... [1]

(ii) State the meaning of the Roman numeral (II) in the name copper(II) oxide.

..... [1]

(iii) 0.0200 moles of $\text{Cu}(\text{NO}_3)_2$ is heated.

Calculate the mass of 0.0200 moles of $\text{Cu}(\text{NO}_3)_2$.

mass = g [2]

3 The names of the elements of Period 2 of the Periodic Table are shown.

lithium beryllium boron carbon nitrogen oxygen fluorine neon

Answer the following questions about these elements.

Each element may be used once, more than once or not at all.

Identify the element which:

(b) has an oxide found in clean, dry air

..... [1]

(c) forms a basic oxide with the formula X_2O

..... [1]