GCSE Chemistry A (Gateway Science)

J248/01 Chemistry A C1-C3 and C7 (Foundation Tier)

Question Set 7

1 Magnesium burns in oxygen to make magnesium oxide.

The reaction involves both oxidation and reduction.

(a) Complete the equation by adding the state symbols for magnesium and oxygen at room temperature.

$2Mg(s) + O_2(g) \rightarrow 2MgO(s)$

magnesium + oxygen → magnesium oxide **[2]**

(b) Which element is oxidised and which element is reduced?

oxidised: ..... magnesium .....

reduced: ..... oxygen .....

$Mg: 0 \rightarrow 2+$

$O: 0 \rightarrow 2-$

[1]

(c) Magnesium oxide reacts with water to make an alkaline solution.

Describe how you would measure the pH of the magnesium hydroxide solution.

A pH meter is **not** available.

- Add universal indicator to the solution (2-3 drops)
- Compare the solution colour with the universal indicator pH colour chart (find the most matching colour)
- The solution has the pH which corresponds to the matching colour on colour chart

[3]

Total Marks for Question Set 7: 6