Oxford Cambridge and RSA

GCSE Chemistry A (Gateway Science)

J248/02 C4-C6 and C7 Foundation (Foundation Tier)

Question Set 1

Multiple Choice Questions

C4: Predicting and identifying reactions and products

1 A student adds sodium hydroxide solution to a small sample of copper(II) chloride solution.

A precipitate is made.

What is the colour of the precipitate?

A Blue

B Green

C Orange

D White

Your answer A **[1]**

2 A student reacts some metals with different salt solutions and records her results.

She places a tick (✓) in her results table if she sees a chemical change and a cross (×) if there is no reaction.

Some of the boxes are blanked out.

	Magnesium chloride	**Silver nitrate**	**Copper(II) sulfate**	**Iron(II) sulfate**
Magnesium		✓	✓	✓
Silver	×		×	×
Copper	×	✓		×
Iron	×	✓	✓	

What is the order of reactivity (**most** reactive to **least** reactive) of these four metals?

Mg > Fe > Cu > Ag

A Iron, silver, magnesium, copper

B Magnesium, copper, iron, silver

C Magnesium, iron, copper, silver

D Silver, copper, iron, magnesium

Your answer C **[1]**

3 Which statement is correct for a Group 1 element?

A It dissolves in water to form a bleach.

B It is an inert gas.

C It is a non-metal.

D It reacts with water to form hydrogen.

Your answer D **[1]**

4 A student is testing sodium carbonate solution.

She adds barium chloride solution followed by excess dilute hydrochloric acid. Which of these observations would **not** be seen?

$Na_2CO_3 + BaCl_2 \rightarrow 2NaCl + BaCO_3$

$BaCO_3 + HCl \rightarrow BaCl_2 + H_2O + CO_2$

A Colourless solution at the end

B Gas bubbles when the dilute acid is added

C White precipitate formed when the barium chloride solution is added

D White precipitate formed when the dilute acid is added

Your answer D **[1]**

5 Lithium, sodium and potassium are Group 1 elements.

What happens when these elements are added to water?

A Some float and carbon dioxide gas and an alkaline solution are made.

B Some float and hydrogen gas and an alkaline solution are made.

C They all float and hydrogen gas and an acidic solution are made.

D They all float and hydrogen gas and an alkaline solution are made.

Your answer D **[1]**

6 Damp litmus paper is used to test for chlorine gas.

Which statement describes the correct result of the test for chlorine gas?

A Damp blue litmus paper turns red then white.

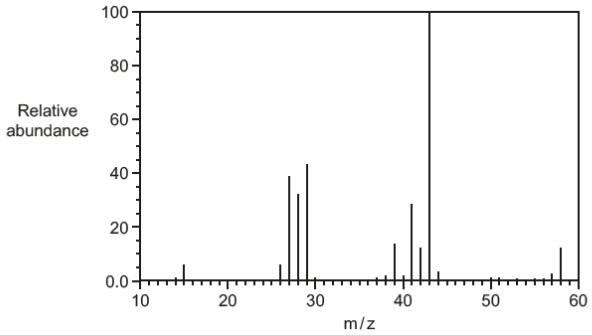
B Damp blue litmus paper turns white then red.

C Damp red litmus paper turns blue then white.

D Damp red litmus paper turns white then blue.

Your answer C **[1]**

7 Look at the mass spectrum of a carbon compound.



Which carbon compound is the mass spectrum from?

A C_2H_2

B $C_2H_5^+$

C $C_3H_7^+$

D C_4H_{10}

Your answer D **[1]**

8 Which of these elements is a **transition metal**?

A Calcium

B Caesium

C Carbon

D Cobalt

Your answer D **[1]**

9 Lithium, sodium and potassium all react with water.

In all three reactions the same gas is produced.

What is the name of the gas?

A Carbon dioxide

B Chlorine

C Hydrogen

D Oxygen

Your answer C **[1]**

10 Which statement describes the test for **chlorine gas**?

A A lighted splint makes a squeaky pop.

B Limewater turns milky.

C A glowing splint re-lights.

D Damp litmus paper is bleached.

Your answer D **[1]**

11 Which statement describes the properties of **transition metals**?

A High melting point, shiny when freshly cut and brittle.

B Good conductors of electricity, low density and low melting point.

C Good conductors of electricity, strong and malleable.

D Strong, malleable and low density.

Your answer C **[1]**

12 Which statement describes the **advantages** of instrumental methods of analysis?

A Instruments can analyse very small amounts and carry out the analyses slowly.

B Instruments are very accurate and use large amounts of substances.

C Instruments are very accurate and carry out the analyses slowly.

D Instruments are very accurate and can run all the time.

Your answer  **[1]**

Total Marks for Question Set 1: 12