PEARSON EDEXCEL GCSE COMBINED SCIENCE (HIGHER) · 1SC0

CHEMISTRY



EXAM QUESTION PACK

TOPIC 6: GROUPS IN THE PERIODIC TABLE: GROUP 1 (PAPER 2)

SCORE	PERCENTAGE
/122	%

STEMUP

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Q1.

Lithium is an alkali metal.

A teacher adds a small piece of lithium to water containing universal indicator.

The universal indicator changes colour.

(i) State the colour change shown by the universal indicator.

(1)

from ..... to .....

(ii) Place ticks (✓) in boxes next to **two** observations that are made when lithium reacts with water.

(2)

observations	(✓)
a green precipitate forms	
effervescence is seen	
the lithium sinks in the water	
the lithium gets smaller and disappears	
the temperature of the solution decreases	

Answer the question with a cross in the box you think is correct ☒ . If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒ .

(iii) When lithium is added to water, lithium hydroxide and a gas are produced.

What is the name of the gas produced in this reaction?

(1)

☐ **A** carbon dioxide

☐ **B** chlorine

☐ **C** hydrogen

☐ **D** oxygen

(iv) Lithium hydroxide contains lithium ions, Li^+.

Describe how a lithium atom becomes a lithium ion.

(2)

.....

.....

.....

.....

(v) Calculate the percentage by mass of hydrogen in lithium hydroxide, LiOH.

$$\% \text{ by mass of element} = \frac{\text{relative atomic mass of element}}{\text{relative formula mass of compound}} \times 100$$

(relative atomic masses: Li = 7, O = 16, H = 1.0)

(3)

.....

.....

.....

.....

percentage by mass of hydrogen = ...

(Total for question = 9 marks)

(**QU04b 1SC0/2CF, June 2025**)

Q2.

This question is about the metals and non-metals in period 3 of the periodic table.

Figure 1 shows some data about some of the elements in period 3.

symbol	atomic number	melting point in °C
Na	11	98
Mg	12	650
Al	13	660
Si	14	1410
P	15	44
Cl	17	–101
Ar	18	–189

Figure 1

Alkali metals react with water to produce an alkaline solution and hydrogen gas.

A test tube of gas can be tested to see if the gas is hydrogen by putting a lighted splint at the top of the test tube.

A student suggests the following method to show that an alkaline solution and hydrogen gas are produced in this reaction.

step 1 pour 150 cm^3 water into the container shown in Figure 2

step 2 add a small piece of lithium to the water in the container shown in Figure 2

step 3 hold a lighted splint above the container

step 4 hold some damp red litmus paper above the mixture in the container.

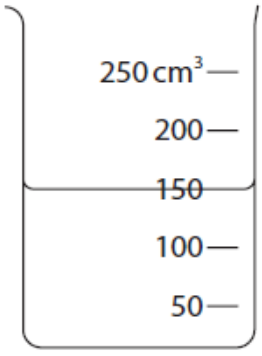


Figure 2

(i) Give the name of the container shown in Figure 2.

(1)

.....

(ii) A teacher says that step 3 and step 4 will **not** work to show that hydrogen gas and an alkaline solution are produced in the reaction.

Explain **one** change that could be made in each step to make the method work.

(3)

step 3

.....

.....

.....

step 4

.....

.....

.....

(Total for question = 4 marks)

(**QU01b 1SC0/2CF, June 2024**)

Q3.

Group 1 elements are known as the alkali metals.

The alkali metals react with water.

(i) A teacher adds a small piece of potassium to water.

Give **two** observations that would be seen.

(2)

.....

.....

.....

.....

(ii) The reaction of lithium with water is much less vigorous than the reaction of potassium with water.

Explain why, in terms of their electronic configurations.

(3)

.....

.....

.....

.....

.....

.....

.....

(iii) When sodium reacts with water, a solution of sodium hydroxide is formed.

When the solution is left in air, the hydroxide ions react with carbon dioxide, forming carbonate ions, CO_3^{2-}, and one other product.

Complete the ionic equation for this reaction.

(2)

..... OH^- + ... → CO_3^{2-} + ...

(Total for question = 7 marks)

(**QU03b 1SC0/2CH, June 2025**)

Q4.

(a) Hydrogen chloride, HCl, can be formed by the reaction of hydrogen, H_2, with chlorine, Cl_2.

Write the balanced equation for this reaction.

(2)

.....

(b) The electronic configuration of hydrogen is 1.
The electronic configuration of chlorine is 2.8.7.

Draw a dot and cross diagram to show the arrangement of electrons in a molecule of hydrogen chloride, HCl.

Show outer electrons only.

(2)

(**Q06 1SC0/2CF, June 2015**)

Q5.

Figure 9 shows a flow diagram of how hydrochloric acid can be made.

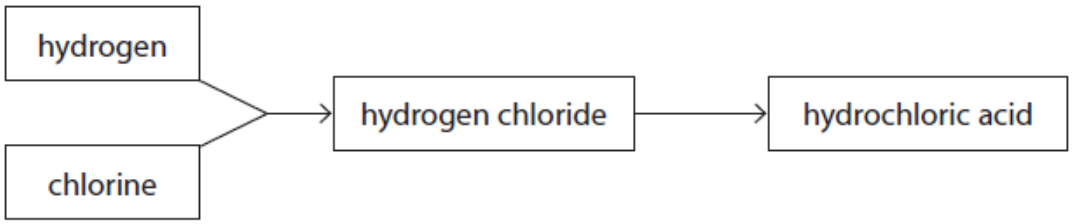


Figure 9

(i) Balance the equation for the reaction between hydrogen and chlorine to form hydrogen chloride.

(1)

$H_2 + Cl_2 \rightarrow$ ..... HCl

(ii) State how hydrogen chloride can be converted into hydrochloric acid.

(1)

.....

.....

(Total for question = 2 marks)

(**QU04c 1SC0/2CF, June 2023**)

Q6.

Complete the following sentences.

(i) The name given to group 7 in the periodic table is ..... .

(1)

(ii) The name given to group 0 in the periodic table is ..... .

(1)

(Total for question = 2 marks)

(**Q02a 1SC0/2CF, June 2019**)

Q7.

Magnesium and calcium are in group 2 of the periodic table. They are less reactive than the metals in group 1.

Calcium reacts with water to form calcium hydroxide, $Ca(OH)_2$, and hydrogen, H_2.

$$Ca(s) + 2H_2O(l) \rightarrow Ca(OH)_2(s) + H_2(g)$$

Describe what would be **seen** when a piece of calcium is dropped into a container of water.

(2)

.....

.....

.....

.....

(Total for question = 2 marks)

(**Q05d 1SC0/2CF, SAM 2016**)

Q8.

Magnesium and calcium are in group 2 of the periodic table. They are less reactive than the metals in group 1.

Calcium reacts with water to form calcium hydroxide, $Ca(OH)_2$, and hydrogen, H_2.

$$Ca(s) + 2H_2O(l) \rightarrow Ca(OH)_2(s) + H_2(g)$$

Describe what would be **seen** when a piece of calcium is dropped into a container of water.

(2)

.....

.....

.....

.....

(Total for question = 2 marks)

(**Q02a 1SC0/2CH, SAM 2016**)

Q9.

Figure 13 shows some information about some group 1 metals.

group 1 metal	atomic number	relative atomic mass
lithium	3	7
sodium	11	23
potassium	19	39
rubidium	37	85
caesium	55	133

Figure 13

* The reactivity of the group 1 metals increases from lithium to caesium.

Often, teachers demonstrate the reactions of lithium, sodium and potassium with water.

These reactions can be used to predict the behaviour and reactions of rubidium and caesium

with water.

Describe the reactions of each of the group 1 metals with water including the predicted behaviour and reactions of rubidium and caesium.

You may use word equations in your answer.

(6)

(Total for question = 6 marks)

(**QU06e 1SC0/2CF, June 2023**)

Q10.

Elements in the periodic table

(a) Copper is a metal.

(i) Complete the sentence by putting a cross (☒) in the box next to your answer.

In the periodic table copper is in

(1)

☐ **A** group 0

☐ **B** group 1

☐ **C** group 7

☐ **D** the transition metals

(ii) Which of these is a property of copper metal?

Put a cross (☒) in the box next to your answer.

(1)

☐ **A** does not conduct an electric current

☐ **B** forms colourless compounds

☐ **C** has a low melting point

☒ **D** is malleable

(b) Helium and argon are noble gases.

(i) Choose the correct word from this box to complete the sentence below.

non- flammable	odourless	reactive

(1)

Argon can be used to put out fires because it is .....

(ii) Choose the correct phrase from this box to complete the sentence below.

has a high density	has a low density	is colourless



(1)

Helium is used in airships because it .....

(c) Chlorine, bromine and iodine are halogens.

(i) The table shows the appearance of bromine and iodine at room temperature.

Complete the table to show the appearance of chlorine at room temperature.

(2)

halogen	appearance at room temperature
chlorine	
bromine	dark red liquid
iodine	grey solid

(ii) Chlorine reacts with hydrogen to form hydrogen chloride.

Write the word equation for this reaction.

(2)

..... + ... → .....

(Total for question = 8 marks)

(**Q01 1SC0/2CF, June 2014**)

Q11.

Lithium, sodium and potassium are reactive metals in group 1 of the periodic table.

Sodium reacts with water to form sodium hydroxide in solution and hydrogen.

Complete the balancing of the equation for this reaction and add the state symbols for each substance.

(3)

.....Na(.....) + $2H_2O$(.....) → .....NaOH(.....) + H_2(.....)

(Total for question = 3 marks)

(**Q26 1SC0/2CF, June 2018**)

Q12.

Lithium, sodium and potassium are reactive metals in group 1 of the periodic table.

Sodium reacts with water to form sodium hydroxide solution and hydrogen.

Complete the balancing of the equation for this reaction and add the state symbols for each substance.

(3)

.....Na(.....) + $2H_2O$(.....) → ..... NaOH(.....) + H_2(.....)

(Total for question = 3 marks)

(**Q09 1SC0/2CH, June 2018**)

Q13.

Lithium, sodium and potassium are reactive metals in group 1 of the periodic table.

In an experiment equal-sized pieces of lithium, sodium and potassium are added to separate samples of water.

(i) A flame is produced only with potassium because potassium

(1)

☒ **A** is the softest metal

☒ **B** has the lowest melting point

☒ **C** is the most reactive

☒ **D** is the only flammable metal

* (ii) A teacher demonstrated this experiment.

The results are shown in Figure 14.

	lithium	sodium	potassium
position of metal in water	floats	floats	floats
movement of metal	slow	fast	very fast
effervescence / bubbling	slow	fast	very fast

Figure 14

Describe, in detail, how the teacher would demonstrate this experiment safely, showing how the results give the order of reactivity of the metals.

(6)

(Total for question = 7 marks)

(**Q27 1SC0/2CF, June 2018**)

Q14.

Lithium, sodium and potassium are reactive metals in group 1 of the periodic table.

In an experiment equal-sized pieces of lithium, sodium and potassium are added to separate samples of water.

A flame is produced only with potassium because potassium

(1)

☒ **A** is the softest metal

☒ **B** has the lowest melting point

☒ **C** is the most reactive

☒ **D** is the only flammable metal

(Total for question = 1 mark)

(**Q10 1SC0/2CH, June 2018**)

Q15.

The electronic configurations of magnesium and calcium are

magnesium 2.8.2
calcium 2.8.8.2

When magnesium and calcium react with water they form positive ions.

Suggest an explanation, in terms of their electronic configurations, why calcium is more reactive than magnesium.

(2)

.....

.....

.....

.....

(Total for question = 2 marks)

(**Q05f 1SC0/2CF, SAM 2016**)

Q16.

The electronic configurations of magnesium and calcium are

magnesium 2.8.2
calcium 2.8.8.2

When magnesium and calcium react with water they form positive ions.

Suggest an explanation, in terms of their electronic configurations, why calcium is more reactive than magnesium.

(2)

.....

.....

.....

.....

(Total for question = 2 marks)

(**Q02c 1SC0/2CH, SAM 2016**)

Q17.

Figure 13 shows some information about some group 1 metals.

group 1 metal	atomic number	relative atomic mass
lithium	3	7
sodium	11	23
potassium	19	39
rubidium	37	85
caesium	55	133

Figure 13

Explain, in terms of their electronic configurations, why these metals are placed in group 1 of the periodic table.

(2)

.....

.....

.....

.....

(Total for question = 2 marks)

(**QU06a 1SC0/2CF, June 2023**)

Q18.

* Group 1 metals react with the elements from group 7 to form salts.

Some examples of these reactions are shown in Figure 7.

reaction	word equation
W	lithium + chlorine → lithium chloride
X	potassium + fluorine → potassium fluoride
Y	rubidium + iodine → rubidium iodide
Z	potassium + bromine → potassium bromide

Figure 7

You will find the position of these elements in their groups on the periodic table.

Explain, in terms of their electronic configurations and the relative reactivity of these elements, which of the reactions shown in Figure 7 would be the most violent.

(Total for question = 6 marks)

(**Q05d 1SC0/2CH, Nov 2021**)

Q19.

The table shows some of the gases in group 0 and some of their properties.
The gases are shown in the order in which they appear in group 0.

(i) Fill in the three spaces in the table.

gas	atomic symbol	density / g dm^{-3}	reaction with metals
helium	He	0.12	no reaction
neon	Ne	1.44	no reaction
argon	Ar		no reaction
krypton		3.00	no reaction
xenon	Xe	3.56	

(ii) Some light bulbs contain a metal filament.



These light bulbs are filled with argon.

Explain why argon, instead of air, is used inside these light bulbs.

(2)

.....

.....

.....

.....

.....

(**Q09 1SC0/2CF, June 2013**)

Q20.

The elements in group 1 react very vigorously with water.

A student suggests this method to see what happens when sodium reacts with water.

step 1 put on safety glasses and a laboratory coat

step 2 cut a 2 cm × 2 cm × 2 cm cube of sodium

step 3 put a few drops of water in the container shown in Figure 2

step 4 add the sodium to the water in the container and observe the reaction

(i) Figure 2 shows a diagram of the container the student suggested for step 3.



Figure 2

Give the name of the container shown in Figure 2.

(1)

.....

(ii) A teacher says that the method is not safe because the reaction is too vigorous.

Explain changes that could be made to step 2 and to step 3 that would make the method safer.

(3)

step 2: change and explanation

.....

.....

.....

step 3: change and explanation

.....

.....

.....

(Total for question = 4 marks)

(**QU01b 1SC0/2CF, June 2019**)

Q21.

This question is about elements in group 1 of the periodic table.

Figure 1 shows the symbols of the first three elements in group 1 of the periodic table and their melting points.

symbol	melting point in °C
Li	181
Na	98
K	64

Figure 1

The elements in group 1 react very vigorously with water.

A student suggests this method to see what happens when sodium reacts with water.

step 1 put on safety glasses and a laboratory coat

step 2 cut a 2 cm × 2 cm × 2 cm cube of sodium

step 3 put a few drops of water in the container shown in Figure 2

step 4 add the sodium to the water in the container and observe the reaction

(i) Figure 2 shows a diagram of the container the student suggested for step 3.



Figure 2

Give the name of the container shown in Figure 2.

(1)

.....

(ii) A teacher says that the method is not safe because the reaction is too vigorous.

Explain changes that could be made to step 2 and to step 3 that would make the method safer.

(3)

step 2: change and explanation

.....

.....

.....

step 3: change and explanation

.....

.....

.....

(Total for question = 4 marks)

(**QU01b 1SC0/2CF, June 2022**)

Q22.

This question is about elements in group 1 of the periodic table.

Figure 1 shows the symbols of the first three elements in group 1 of the periodic table and their melting points.

symbol	melting point in °C
Li	181
Na	98
K	64

Figure 1

Use the periodic table to answer these questions.

(i) Give the symbol of **another** element in group 1.

(1)

.....

(ii) Give the atomic number of lithium.

(1)

.....

(iii) Describe the trend in the melting points of the elements in Figure 1.

(2)

.....

.....

(Total for question = 4 marks)

(**QU01a 1SC0/2CF, June 2019**)

Q23.

This question is about elements in group 1 of the periodic table.

Figure 1 shows the symbols of the first three elements in group 1 of the periodic table and their melting points.

symbol	melting point in °C
Li	181
Na	98
K	64

Figure 1

Use the periodic table to answer these questions.

(i) Give the symbol of **another** element in group 1.

(1)

.....

(ii) Give the atomic number of lithium.

(1)

.....

(iii) Describe the trend in the melting points of the elements in Figure 1.

(2)

.....

.....

(Total for question = 4 marks)

(**QU01a 1SC0/2CF, June 2022**)

Q24.

Complete the sentence by putting a cross (☒) in the box next to your answer.

Group 1 in the periodic table contains

(1)

☒ **A** transition metals

☒ **B** noble gases

☒ **C** halogens

☒ **D** alkali metals

(**Q08 1SC0/2CF, June 2013**)

Q25.

Lithium, sodium and potassium are metals in group 1 of the periodic table.

State the name given to group 1 metals.

(1)

.....

(Total for question = 1 mark)

(**Q04a 1SC0/2CF/S2, SAM**)

Q26.

The periodic table is very useful to chemists.

(a) Complete the sentence by putting a cross (☒) in the box next to your answer.

The periodic table is a table of

(1)

☒ **A** mixtures

☒ **B** elements

☒ **C** compounds

☒ **D** solutions

(b) Complete the sentence by putting a cross (☒) in the box next to your answer.

Group 1 in the periodic table contains

(1)

☒ **A** transition metals

☒ **B** noble gases

☒ **C** halogens

☒ **D** alkali metals

(c) The table shows some of the gases in group 0 and some of their properties.
The gases are shown in the order in which they appear in group 0.

(i) Fill in the three spaces in the table.

gas	atomic symbol	density / g dm^{-3}	reaction with metals
helium	He	0.12	no reaction
neon	Ne	1.44	no reaction
argon	Ar		no reaction
krypton		3.00	no reaction
xenon	Xe	3.56	

(ii) Some light bulbs contain a metal filament.



These light bulbs are filled with argon.

Explain why argon, instead of air, is used inside these light bulbs.

(2)

.....

.....

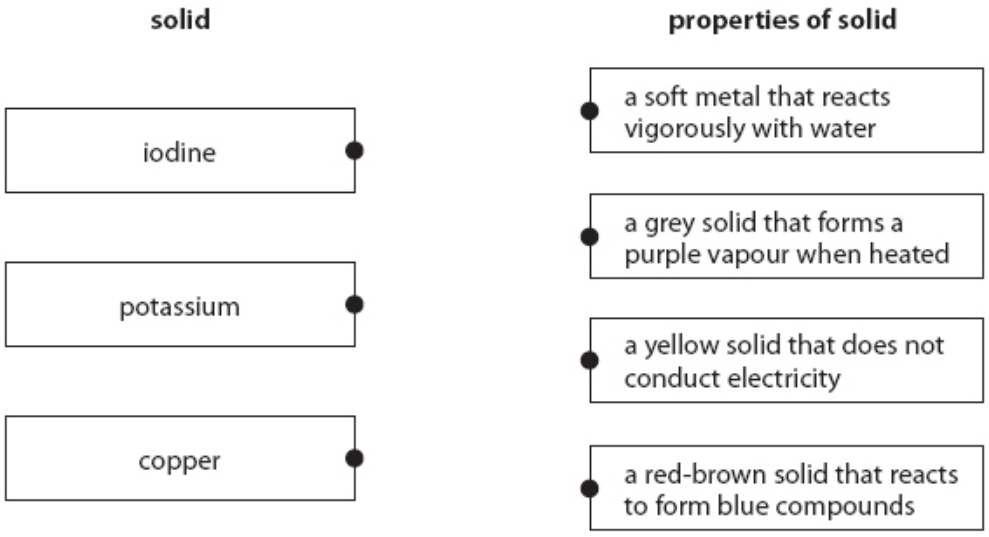
.....

.....

.....

(d) The table shows some solids and some properties of solids.

Draw **one** straight line from each solid to properties of that solid.



(Total for Question = 9 marks)

(**Q01 1SC0/2CF, June 2013**)

Q27.

Answer the question with a cross in the box you think is correct ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

Chlorine is an element in group 7 of the periodic table.

What name is given to group 7 of the periodic table?

(1)

☒ **A** alkali metals

☒ **B** halogens

☒ **C** noble gases

☒ **D** transition metals

(Total for question = 1 mark)

(**QU04a 1SC0/2CF, June 2023**)

Q28.

Answer the question with a cross in the box you think is correct ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

Figure 13 shows some information about some group 1 metals.

group 1 metal	atomic number	relative atomic mass
lithium	3	7
sodium	11	23
potassium	19	39
rubidium	37	85
caesium	55	133

Figure 13

Which row shows two correct properties of group 1 metals?

(1)

		properties of group 1 metals	
☒	**A**	compounds are white in colour	high density
☒	**B**	low melting points	compounds are blue in colour
☒	**C**	soft enough to be cut by a knife	low melting points
☒	**D**	high density	conduct electricity

(Total for question = 1 mark)

(QU06b 1SC0/2CF, June 2023)

Q29.

Answer the question with a cross in the box you think is correct ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

Figure 4 shows some information about the group 1 metals.

group 1 metal	atomic number	relative atomic mass
lithium	3	7
sodium	11	23
potassium	19	39
rubidium	37	85
caesium	55	133

Figure 4

Which row shows two correct properties of group 1 metals?

(1)

		properties of group 1 metals	
☒	**A**	compounds are white in colour	high density
☒	**B**	low melting points	compounds are blue in colour
☒	**C**	soft enough to be cut by a knife	low melting points
☒	**D**	high density	conduct electricity

(Total for question = 1 mark)

(**QU02b 1SC0/2CH, June 2023**)

Q30.

Answer the question with a cross in the box you think is correct ☒ . If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒ .

Group 1 elements are known as the alkali metals.

Which row gives two physical properties of the alkali metals?

		hardness	melting point
☒	**A**	hard	low
☒	**B**	hard	high
☒	**C**	soft	low
☒	**D**	soft	high

(Total for question = 1 mark)

(**QU03a 1SC0/2CH, June 2025**)

Q31.

Lithium, sodium and potassium are reactive metals in group 1 of the periodic table.

Explain, in terms of electronic configurations, the increase in reactivity from lithium to sodium to potassium.

(2)

.....

.....

.....

.....

.....

.....

(Total for question = 2 marks)

(**Q11 1SC0/2CH, June 2018**)

Q32.

(i) Figure 7 shows the melting point of the metals in group 1 of the periodic table.

element	melting point in °C
lithium	181
sodium	98
potassium	64
rubidium	
caesium	29
francium	27

Figure 7

Estimate the melting point of rubidium.

(1)

..... °C

(ii) Each of the metals in Figure 7 reacts with fluorine to form a metal fluoride.

Give the name of a group 1 metal that reacts with fluorine more vigorously than sodium.

(1)

.....

.....

(Total for question = 2 marks)

(**Q05e 1SC0/2CF/S2, SAM**)

Q33.

Metals

There are many metallic elements in the periodic table.

(a) Which row of the table correctly shows two metals that are in group 1 and two metals that are transition metals?

Put a cross (☒) in the box next to your answer.

(1)

	group 1	transition metals
☒ **A**	lithium and zinc	calcium and copper
☒ **B**	potassium and caesium	copper and iron
☒ **C**	sodium and potassium	copper and magnesium
☒ **D**	sodium and magnesium	manganese and nickel

(b) (i) Describe the structure of metals in terms of the particles present in their structures.

(2)

.....

.....

.....

(ii) Explain how metals conduct electricity.

(2)

.....

.....

.....

(c) (i) Describe what you would **see** when a small piece of sodium is added to water.

(2)

.....

.....

.....

.....

(ii) Write the balanced equation for the reaction of sodium with water to form sodium hydroxide and hydrogen.

(3)

.....

(Total for question = 10 marks)

(Q03 1SC0/2CH, June 2014)

Q34.

Lithium, sodium and potassium are metals in group 1 of the periodic table.

Lithium, sodium and potassium react with water.

Small pieces of each of these metals are added to separate large volumes of water.

Figure 6 shows the time each metal takes to react completely and the observations during the reaction.

metal	time for metal to react completely in s	observations
lithium	20	effervescence moves slowly on the surface makes an alkaline solution
sodium	10	melts vigorous effervescence moves quickly on the surface makes an alkaline solution
potassium	5	melts vigorous effervescence gas evolved catches fire moves very quickly on the surface makes an alkaline solution

Figure 6

In all three reactions the same gas is produced.

What is the name of this gas?

(1)

☒ **A** carbon dioxide

☒ **B** chlorine

☒ **C** hydrogen

☒ **D** oxygen

(Total for question = 1 mark)

(**Q04b 1SC0/2CF/S2, SAM**)

Q35.

Answer the question with a cross in the box you think is correct ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

The first four elements in group 1 are lithium, sodium, potassium and rubidium.

Rubidium reacts with water to form rubidium hydroxide and hydrogen.

$$2Rb(s) + 2H_2O(l) \rightarrow 2RbOH(aq) + H_2(g)$$

(i) Predict what you would **see** when a small piece of rubidium is placed in a large volume of water.

(3)

.....

.....

.....

.....

(ii) Why is rubidium more reactive than potassium?

(1)

☒ **A** the metallic bonds in rubidium are weaker than those in potassium

☒ **B** rubidium is a softer metal than potassium

☒ **C** the outer electron of a rubidium atom is further from the nucleus than potassium's

☒ **D** rubidium has a more exothermic reaction with water than potassium does

(iii) 8.5 g of rubidium are reacted completely with water.

The reaction makes a solution of rubidium hydroxide.
The volume of this solution is 2.5 dm^3.

Calculate the concentration of the rubidium hydroxide solution in g dm^{-3}.

(relative atomic mass: Rb = 85; relative formula mass: RbOH = 102)

(4)

.....

.....

.....

.....

concentration = ...g dm^{-3}

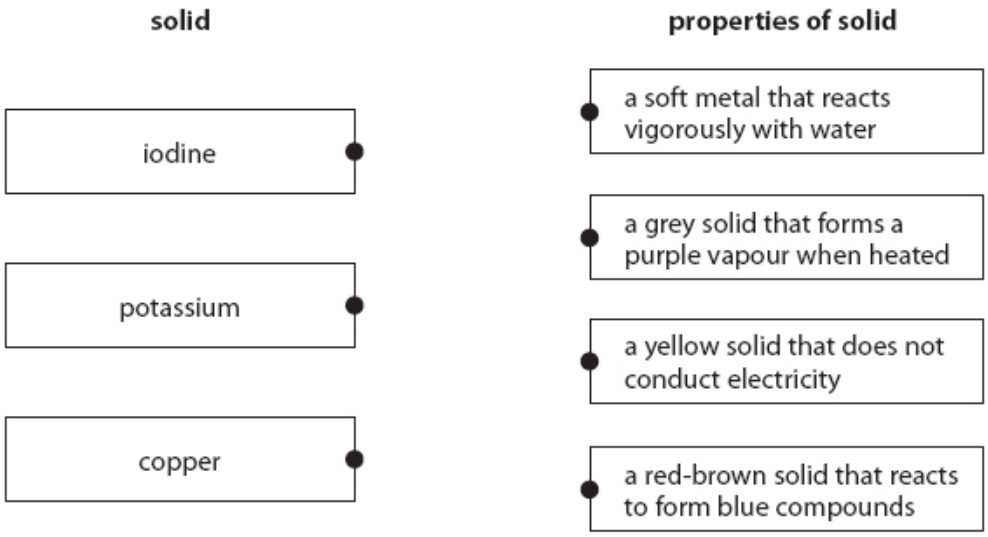
(Total for question = 8 marks)

(**Q05a 1SC0/2CH, Nov 2020**)

Q36.

The table shows some solids and some properties of solids.

Draw **one** straight line from each solid to properties of that solid.



(**Q10 1SC0/2CF, June 2013**)

Q37.

Lithium, sodium and potassium are metals in group 1 of the periodic table.

Rubidium is below potassium in group 1.

In an experiment, a small piece of rubidium is added to water.

metal	time for metal to react completely in s	observations
lithium	20	effervescence moves slowly on the surface makes an alkaline solution
sodium	10	melts vigorous effervescence moves quickly on the surface makes an alkaline solution
potassium	5	melts vigorous effervescence gas evolved catches fire moves very quickly on the surface makes an alkaline solution

Figure 6

(i) Use Figure 6 to predict the time taken for this piece of rubidium to react completely.

(1)

time taken = ... s

(ii) Give **two** observations you would expect to make when rubidium is added to water.

(2)

1 .....

.....

2 .....

.....

(Total for question = 3 marks)

(**Q04c 1SC0/2CF/S2, SAM**)

Q38.

Lithium, sodium and potassium are metals in group 1 of the periodic table.

State a safety precaution that should be taken when group 1 metals are added to water.

(1)

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.....

(Total for question = 1 mark)

(**Q04d 1SC0/2CF/S2, SAM**)

Q39.

Hydrogen chloride gas and sulfur dioxide gas are dissolved in separate test tubes of water.
Blue litmus paper is dipped into each test tube.

State and explain the colour change you would observe in each test tube.

(3)

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(Total for question = 3 marks)

(**QU03c 1SC0/2CF, June 2019**)

Q40.

Hydrogen chloride gas and sulfur dioxide gas are dissolved in separate test tubes of water.
Blue litmus paper is dipped into each test tube.

State and explain the colour change you would observe in each test tube.

(3)

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(Total for question = 3 marks)

(**QU03c 1SC0/2CF, June 2022**)