AQA, OCR, Edexcel

GCSE Science

GCSE Chemistry

Group 0 and 1

Answers

Total Marks: /29

Q1: What does the reaction of elements that form positive ions create? Circle one.

Non Metals

(1 mark)

Q2: Explain the differences between metals and non-metals when using electricity.

A= 1 mark for each of the following:

- Metals – Conduct
- Non metals – Insulators / non conductors

(2 marks)

Q3: What happens when elements from group 7 gain electrons?
A= Form negative ions

(1 mark)

Q4: Group 0 contains the noble gasses. Give 2 examples of a noble gas.
A= Accept any 2 of the following:

- Helium
- Neon
- Argon
- Krypton
- Xenon
- Radon

(2 marks)

Q5: Define the properties of a noble gas.
A= Accept any 2 of the following:

- Unreactive
- Stable arrangement of electrons
- Don't easily form molecules

(2 marks)

Q6: Predict what will happen to the boiling points of the Nobel gasses going down the periodic group.
A = Boiling point increases

(1 mark)

Q7: Alkaline metals are part of which group? Circle one.

(1 mark)

Q8: How does the electron structure of the group 1 elements give their characteristic properties?

A= Single electron in their outer shell

(1 mark)

Q9: How are group 1 metals stored and why?

A= 1 mark for each of the following points:

- Stored in oil
- Very reactive

(2 marks)

Q10: Discuss the properties of the group 1 metals

A= Accept any 6 of the following:

- Low Density
- Float on water
- Very soft
- Very reactive
- Reactive with oxygen
- Burn vigorously
- Low boiling point
- Low melting point
- Reactive with water

(6 marks)

Q11: Complete the following Equations to show sodium's reactivity with water, chlorine and oxygen.

$2Na + \mathbf{2}H_2O \longrightarrow \mathbf{2NaOH + H_2}$

$\mathbf{2}Na + Cl_2 \longrightarrow \mathbf{2NaCl}$

$2Na + O_2 \longrightarrow \mathbf{2Na_2O}$

(3 marks)

Q12: Complete the following equations to show lithium's reactivity with water chlorine and oxygen.

$2Li + \mathbf{2}H_2O \longrightarrow \mathbf{2LiOH + H_2}$

$\mathbf{2}Li + Cl_2 \longrightarrow \mathbf{2LiCl}$

$2Li + O_2 \longrightarrow \mathbf{2Li_2O}$

(3 marks)

Q13: Complete the following equations to show potassium's reactivity with water, chlorine and oxygen.

2K + **2**H2O ⟶ **2KOH + H2**

2K + Cl2 ⟶ **2KCl**

4K + O2 ⟶ **2K2O**

(3 marks)

Q14: How does the reactivity of the alkali metals change going down the periodic group?

A= Increases

(1 mark)