

GCSE Chemistry (9 – 1)

Formulae

Name:

Group:

Instructions

- Read each question carefully before you begin to answer it.
- Use black ink or black ball-point pen for your answers.
- Fill in the boxes at the top of this page with your name and group.
- Attempt to answer every question in the booklet.
- Answer the questions in the spaces provided – there may be more space than you need in some answer spaces.
- Calculators may be used for this booklet.
- For any calculations, you **must** show all your working.
- Any and all drawings or graphs should be completed in pencil.



For markers use	
Question	Mark
1	/26
2	/26
3	/16
4	/14
Total	/82
%	
Grade	

Information

- The maximum mark for this paper is 82 marks.
- The marks for each question are shown in brackets.
- Please be aware that good English and clear presentation are required in your answers.



Writing chemical equations is an absolutely vital key skill in chemistry.

With this in mind, it's very much a case of practise, practise and more practise. Let's get into them 😊

Section 1: Formulae of Ionic Compounds

1. For each of the compounds listed below, write the correct chemical formula.

Remember to balance the positive and negative charges so the overall charge of the compound is zero.

a) Sodium chloride.

.....

c) Magnesium oxide

.....

e) Calcium sulfide.

.....

g) Magnesium chloride.

.....

i) Calcium iodide

.....

k) Sodium hydroxide.

.....

m) Calcium carbonate.

.....

o) Lithium hydroxide.

.....

q) Aluminium nitrate.

.....

s) Ammonium sulfate.

.....

u) Magnesium nitrate.

.....

w) Aluminium hydroxide.

.....

y) Aluminium carbonate.

.....

b) Potassium bromide

.....

d) Lithium fluoride

.....

f) Sodium oxide.

.....

h) Potassium sulfide.

.....

j) Aluminium chloride.

.....

l) Sodium hydrogencarbonate.

.....

n) Magnesium sulfate.

.....

p) Calcium hydroxide.

.....

r) Ammonium chloride.

.....

t) Aluminium sulfate.

.....

v) Ammonium carbonate.

.....

x) Calcium phosphate.

.....

z) Ammonium phosphate.

.....

(Total for Question 1 is 26 marks)

Section 2: Formulae of Transition Metal Compounds

2. For each of the compounds listed below, write the correct chemical formula.

a) Iron(II) chloride.

.....

c) Iron(III) bromide.

.....

e) Lead(II) iodide.

.....

g) Iron(III) oxide.

.....

i) Lead(IV) oxide.

.....

k) Chromium(III) chloride.

.....

m) Copper(II) sulfate

.....

o) Lead(II) nitrate.

.....

q) Nickel(II) carbonate.

.....

s) Iron(II) sulfate.

.....

u) Iron(III) hydroxide.

.....

w) Manganese(IV) oxide.

.....

y) Chromium(III) sulfate.

.....

b) Copper(II) oxide.

.....

d) Copper(I) oxide.

.....

f) Nickel(II) chloride.

.....

h) Copper(I) sulfide.

.....

j) Manganese(II) sulfide.

.....

l) Cobalt(II) bromide.

.....

n) Iron(II) hydroxide.

.....

p) Iron(III) nitrate.

.....

r) Copper(II) hydroxide.

.....

t) Cobalt(II) nitrate.

.....

v) Lead(IV) chloride.

.....

x) Iron(III) sulfate.

.....

z) Copper(II) phosphate.

.....

(Total for Question 2 is 26 marks)

Section 3: A Mixture of Ionic and Transition Metal Formulae

3. For each of the compounds listed below, write the correct chemical formula.

a) Iron(II) oxide.

.....

c) Copper(II) bromide.

.....

e) Lead(II) carbonate.

.....

g) Chromium(III) oxide.

.....

i) Iron(III) sulfide.

.....

k) Nickel(II) hydroxide.

.....

m) Copper(II) sulfate.

.....

o) Lithium sulfate.

.....

b) Sodium sulfate.

.....

d) Potassium carbonate.

.....

f) Magnesium bromide.

.....

h) Ammonium bromide.

.....

j) Calcium nitrate.

.....

l) Aluminium sulfide.

.....

n) Cobalt(II) sulfate.

.....

p) Manganese(IV) sulfide.

.....

(Total for Question 3 is 16 marks)

Section 4: Formulae of Covalent Compounds

4. For each of the covalent compounds listed below, write the correct chemical formula.

a) Carbon dioxide.

.....

b) Carbon monoxide.

.....

c) Sulfur dioxide.

.....

d) Sulfur trioxide.

.....

e) Nitrogen monoxide.

.....

f) Nitrogen dioxide.

.....

g) Water.

.....

h) Ammonia.

.....

i) Hydrogen chloride.

.....

j) Sulfuric acid.

.....

k) Nitric acid.

.....

l) Carbon tetrachloride.

.....

m) Phosphorus trichloride.

.....

n) Sulfuric acid

.....

(Total for Question 4 is 14 marks)