

**PRIME MINISTERS OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT
AUTHORITY
BUSEGA DISTRICT COUNCIL
TERMINAL EXAMINATION
CHEMISTRY MARKING SCHEME**

SECTION A (15MARKS)

1.

ITEM	i	ii	iii	iv	v	vi	vii	viii	ix	x
ANSWER	B	D	B	C	C	B	D	C	C	B

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2.

LIST A	I	II	III	IV	V
LIST B	D	C	E	B	A

SECTION B (70 MARKS)

3 a) (i) Fertilizers

(ii) Pesticides

(iii) cements

(iv) Plastic container

(v) paper

b) Importance of studying chemistry

I) it helps to answer the fundamental questions

II) It helps to get the professional people like teachers, doctors

III) It helps in water purification

IV) It helps in improving sectors like agriculture and industries

V) It helps in food preservation

@1=(5marks)

4 a) Experiment A product is Solution

Experiment B product is Suspension **@2=4marks**

b)

SOLUTION	SUSPENSION
I. Homogeneous mixture	I. Heterogeneous mixture
II. clear	II. Not Clear
III. Solute completely dissolved in a solvent	III. Solute particles settle if the suspension is undisturbed
IV. Can be separated by Evaporation	IV. Components can be separated by filtration

@2marks = 6 marks

5 a) types of bonds

(i) Electrovalent bond; is a type of chemical formed when one atom transfers electrons to another, resulting in the formation of positively and negatively charged

ions, usually occur between metal and nonmetal. Example, bond formed between sodium and chloride, aluminum and chlorine. (2 marks).

(ii) Covalent bond; occur when atom share electrons to achieve stable electron configuration, formed when atom have the same electronegativity. Example bond formed between oxygen atom in oxygen gas, bond formed between hydrogen and chlorine in HCL.

b) Oxidation state of chlorine in KClO_3

SOLUTION

Oxidation number of potassium is +1

Oxidation state of oxygen is $(-2 \times 3) = -6$

Oxidation number of KClO_3 is zero

Therefore

$+1 + \text{Cl} -6 = 0$

$\text{Cl} = 5$

Oxidation number of chlorine in KClO_3 is 5

C) Molecular fomula = n x empirical formula

R. R. M = n x sum of R. A. M

Relative molecular mass is = 78.11

Some of R. A. M = $(12 + 1)$

= 13

Therefore

$78.11 = n(13)$

$\frac{78.11}{13} = n$

13

n= 6

Therefore, the molecular formular is C_6H_6

6. (a) laboratory rules after practical activities 1@each

(i) Do not pour concentrated chemicals into the sink

(ii) Turn off gas and water taps

(iii) Wash your hands with soap and running water

(iv) Clean up the equipment and store them safely

(v) Appropriately dispose of any waste/

(b) Causes of Accidents

(i) gas leakage

(ii) Use of broken apparatus

(iii) slippery floor

(iv) Poor ventilation

(c) Qualities f Good Laboratory

(i) It must have source of heat

(ii) it must have fume chamber

(iii) it must be ventilated

(iv) it must have working benches

7 (a) (i) physical change

(ii)physical change

(iii) physical change

(iv) chemical change

(v) chemical change

(b) Importance of changes in state of matter

(i) water cycle

(ii) refinery

(iii) production of electricity

(iv) drying of materials

(v) metallurgy

8 (a) relation to its reactivity

It tends to become stable after losing two electrons

Relation to periodic table

It placed in group 2 and period 3

b. form metal oxide

c. ionization energy decrease down the group

9 (a) (i) Decomposition reaction

(ii) precipitation reaction

(iii) Combination reaction

(iv) Displacement reaction

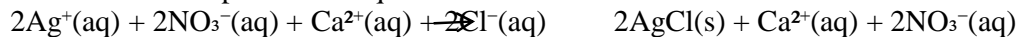
(v) Neutralization reaction

(b) Steps to write the net ionic equation

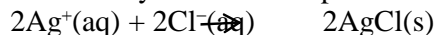
i. Write the balanced formula equation



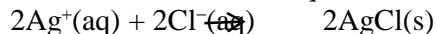
ii. Write the complete ionic equation



iii. Identify and remove spectator ions



iv. Write the net ionic equation



SECTION C

10. Points

- ✓ Class of fire
- ✓ Size and intensity of fire
- ✓ Location and environment
- ✓ Presence of facility
- ✓ Presence of electrical sensitivity
- ✓ Weather condition
- ✓ Speed of fire spread

Introduction 2 marks

Main body 2@ = 12

Conclusion 1

THE PRIME MINISTER'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT
BUSEGA DISTRICT COUNCIL
FORM TWO TERMINAL EXAMINATION

CHEMISTRY

TIME: 2:30HRS

MAY, 2026

INSTRUCTIONS

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1. This paper consists section A, B and C with total of ten (10) questions
2. Answer all questions
3. All drawings must be in pencil
4. Any unauthorized materials are not allowed in the examination room
5. The following constant may be used

Atomic masses **H=1, O=16, C= 12**

SECTION A (15 Marks)

Answer **all** questions in this section

1. For each of the items (i) – (x), choose the correct answer from among the given alternatives and write its letter besides the item number in the space provided.
 - (i) What are some of the main purposes of vaccines as chemical substances?
 - A Cure animals and human beings from diseases
 - B Protect animals and human beings from diseases
 - C Introduce vitamins and proteins in animals
 - D Make animals grow faster than normal
 - (ii) There are many concepts in chemistry which involve calculations rather than word explanations. This implies that a chemistry student should also be good in:
 - A Biology
 - B Physics

C Geography

D Mathematics

- (iii) Some medicines and drinks are written on their containers “*Shake well before use*” Why is that so?
- A Because they produce a typically interesting sound when shaken
 - B Because some particles usually settle at the bottom
 - C Because it is not good to drink without shaking
 - D Because they may be corrosive
- (iv) Iron tools are usually painted with some colours. This helps to:
- A Make them expensive
 - B Reduce their density
 - C Prevent them from getting rust
 - D Increase their ability to conduct electricity
- (v) Glass apparatus are preferred over plastic, wooden and clay apparatus in the chemistry laboratory because:
- A Glass apparatus are fragile
 - B Wooden apparatus are oxidants to catch fire very easily
 - C Glass apparatus are easy to wash and are transparent for clear observation
 - D Plastic and clay apparatus are very expensive
- (vi) Which of the following is an example of decomposition of matter?
- A Mixing flour and water to make ugali
 - B Chewing food in the mouth into small pieces
 - C Reacting nitrogen and hydrogen to produce ammonia gas
 - D Combining oxygen and hydrogen to get water
- (vii) Most of atoms are neutral because they have
- A Nucleus which is only made up of neutrons
 - B Neutron with zero charge
 - C Equal numbers of electrons and protons in the shells

D The number of electrons which balances out the number of protons in the atom.

(viii) Why loose or floppy clothing not allowed in the laboratory?

- A It will help to move fast
- B It will get wet when water splashes
- C It may catch fire or cause one to fall
- D It causes pure ventilation in the body

(ix) The atomic number of an element K is 9. What is its electronic configuration?

- A 2:4:3
- B 2:5:2
- C 2:7
- D 2:6:1

(x) The Brownian movement is taken to be the evidence of:

- A Newton's laws of motion
- B The kinetic theory of matter
- C The theory of ionization
- D The flotation of particle

ANSWERS

QUESTION	(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)
ANSWER										

E

2. Match the following LIST A and LIST B by writing the letter and its roman of its corresponding answer

LIST A	LIST B
I. The blockage of the upper part	A. Suffocation

<p>of the airways by food or drink</p> <p>II. A skin injury that causes a change in color of the skin</p> <p>III. A sudden loss of consciousness caused by lack of sufficient blood and oxygen to the brain</p> <p>IV. A condition in which the body system is unable to take enough blood to the vital organs</p> <p>V. A condition in which the lungs are not getting enough oxygen</p>	<p>B. Shock</p> <p>C. Bruises</p> <p>D. Chocking</p> <p>E. Fainting</p> <p>F. Burns</p> <p>G. Bleeding</p>
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LIST A	i	ii	iii	iv	v
LIST B					

SECTION B (70 MARKS)

Answer **all** questions in this section

3. Mr. Joshua advises his son not to study Chemistry at all simply because Chemistry is nothing and useless in the society. He claims that there are no any

- a) What is the name of product formed in experiment 1 and experiment 2?
(4 marks)

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- b) Outline three (3) differences between experiment 1 and experiment 2. (6 marks)

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5. a) With example explain types of bonds. (4 marks)

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- b) Find the oxidation state of chlorine in KClO_3 . (2 marks)

c) If a compound has an empirical formula CH and has a relative molecular mass of 78.11, deduce the molecular formula. (4 marks)

- 6 Form one students were taught on laboratory rules during orientation class. They forgot, their teacher said that it is important to adhere to these laboratory rules. Failure to follow may lead to accidents.
- a) State three (3) laboratory rules that must be adhered after practical activities. (3marks)

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8 A. Magnesium has the electronic configuration 2:8:2. Explain how this configuration relates to its chemical reactivity and its positions in the periodic table

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b. what happens when alkali earth metals burn in oxygen?

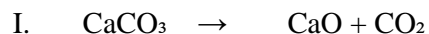
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c. explain ionization energy trends down the group

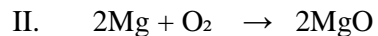
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9 A. Determine the type of chemical reaction in the following reactions (5 marks)

@1 mark each



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b. Write a net ionic equation for the reaction between aqueous solution of silver nitrate and calcium chloride. (5 marks)

SECTION C (15 Marks)

10 What determines the choice of an appropriate firefighting equipment in the event of fire accident? Six points

