CHEMISTRY FORM 1 M/S
TERM 2 2022 OPENER EXAM FORM 1
TIME:

ANSWER ALL THE QUESTIONS

1a. What is chemistry? (1mk)

It involves the study of composition and properties of matter

b. State two roles of chemistry in our society? (2mks)

- Helps in the manufacture of substance like soap, glass, plastics, medicine that are useful to the society.
- Important in purification of some substance

2. Outline any five laboratory safety rules (5mks)

- Never run while in the laboratory
- Never taste or eat anything in the lab
- Consultation before trying any experiment
- Label all the chemicals you are using
- Always put off flames

3a What is a flame?
It is a mass of burning gases

b. The following diagram represents a non – luminous flame of a Bunsen burner.

(i) State the colour of the parts of the flame labelled A,B and C (3mks)

- A- Pale blue region
- B- Greenish blue region
- C- Almost colourless region

(ii) Which of the parts in (i) above is the hottest? (1mk)
Pale blue region

(iii) Why is non-luminous flame preferred for heating? (2mk)
Hottest flame doesn't produce soot

(iv) a**. Name the other type of flame produced by the Bunsen burner.**
Luminous

b. Under what condition does the bunsen burner produce the flame you named in (a) above (1mk)
When the air hole is closed

4a. Explain why most laboratory apparatus are made of glass. (3mks)
Does not react with most of substances
Easy to clean
For visibility

b. Identify the following laboratory apparatus (3mks)

- (i) Conical flask
- (ii) Measuring cy

5a. Define matter. (1mk)

Anything that mass mass and occupy space

b. Give 3 states of matter. (3mks)

Solid, liquid and gases

c. Identify the physical process in the diagram below. (6mks)

A. Melting
B. Evaporation
C. Condensation
D. Freezing
E. Sublimation
F. Deposition

d. State the differences between solid, liquid and gases (3mks)

Solid have a definite mass, shape and volume
Liquid have a definite mass and volume
Gases have only definite mass

6a. identify the laboratory apparatus below and label the parts.

- A- Chimney
- B- Collar
- C – Air hole
- D- Jet
- E - Base

7a. Define the following terms

(i) mixture (1mk)

Consists of two or more substances combined physically and physical means can be used in separation.

(ii) Compound (1mk)

Is a pure substance made up of two or more elements chemically combined?

(iii) Element (1mk)

Is a pure substance which cannot be split into simpler substances by chemical means

b. Name 2

(i) Mixtures

Maize and beans, sand and salt

(ii) Compounds

$CUSO_4$ and H_2SO_4

(iv) Elements

Mg and Sulphur

c. List three differences between temporary and permanent changes. (3mks)

Temporary changes	**Permanent changes**
No new substance formed	New substance formed
Heat energy is not involved	Heat energy is involved
Reversible	Irreversible
No change in mass	Changes in mass

d. Give three examples of:

(i) Temporary physical change (3mks)

Heating ZnO

Heating solid wax

Heating solid lodine

(ii) Permanent change (3mks)

Combustion of fuel

Combustion of firewood

Heating of $CU(No_3)_2$

e. what are the chemical symbols of the following elements:

(i) Copper

Cu

(ii)Sodium

Na

(iii)Potassium

K

8a. Name the elements present in the following compounds. (6mks)

(i) Iron Sulphide

(ii) Copper (ii) Sulphate

(iii) Sodium Sulphite