**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.**

1. **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

1. **Which of the parts in (i) above is the hottest? (1mk)**

Pale blue region

1. **Why is non-luminous flame preferred for heating? (2mk)**

Hottest flame doesn’t produce soot

1. 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 D. Freezing

B. Evaporation E. Sublimation

C. Condensation 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**

1. **mixture (1mk)**

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

1. **Compound (1mk)**

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

1. **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**

CUSO4 and H2SO4

1. 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(No3) 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)**

1. **Iron Sulphide**
2. **Copper (ii) Sulphate**
3. **Sodium Sulphite**