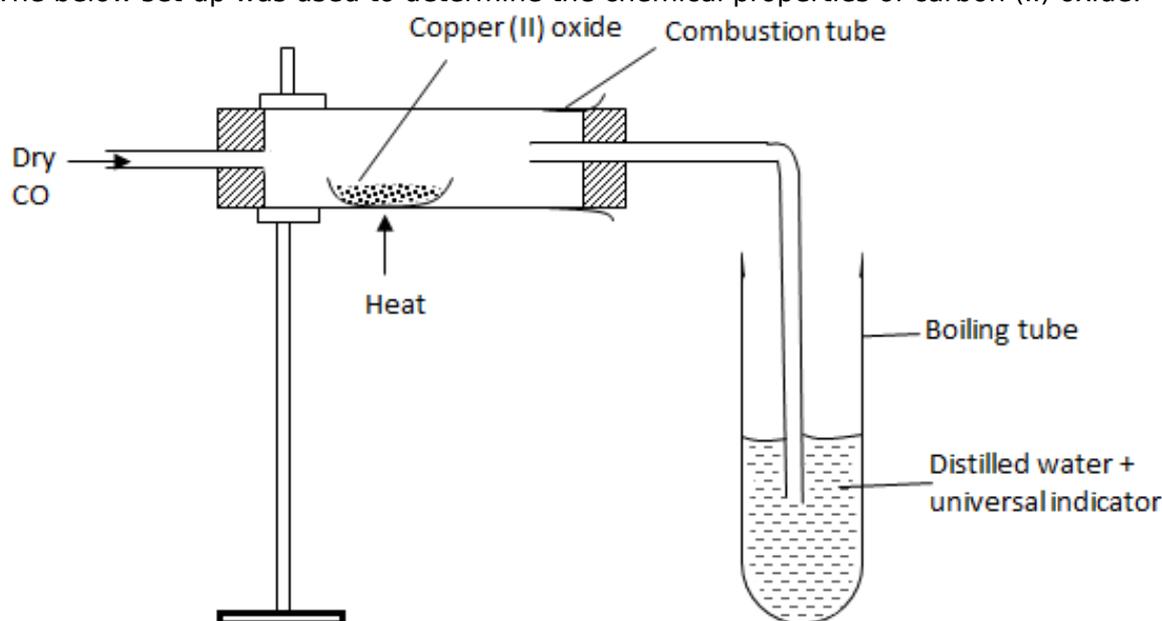


CHEMISTRY PAPER 1 - KCSE 2019 MOKASA PRE MOCK EXAMINATION

- State **two** laboratory rules that should be followed to avoid contamination and wastage of chemicals. **(2 marks)**
- Give **one** reason some of the laboratory apparatus are made of ceramics. **(1 mark)**
 - Name **two** apparatus that can be used to measure approximately 75 cm³ of dilute sulphuric (VI) acid. **(2 marks)**
- Draw the procedural set-ups that can be used to separate a mixture of sand and calcium chloride to obtain crystals of calcium chloride. **(3 marks)**
- State **two** applications of chromatography. **(2 marks)**
- The below set-up was used to determine the chemical properties of carbon (II) oxide.



- Write the chemical equation for the reaction taking place in the combustion tube. **(1 mark)**
 - State and explain the observation made in the boiling tube. **(2 marks)**
- A student placed some hydrogen peroxide in a test tube then added a small amount of manganese (IV) oxide. A glowing splint was then brought near the mouth of the tube.
 - State the observation made on the glowing splint. **(1 mark)**
 - What is the role of the manganese (IV) oxide? **(1 mark)**
 - Give **one** use of the gas produced. **(1 mark)**
 - An organic compound with formula C₄H₁₀ has isomers. Draw and name two possible structural isomers of the compound. **(3 marks)**
 - Explain how the compound can be distinguished using bromine water. **(2 marks)**
 - Chlorine can be prepared in the laboratory by using the following reagents and chemicals. Concentrated sulphuric (VI) acid, water, manganese (IV) oxide, concentrated hydrochloric acid.
 - State the role of concentrated sulphuric (VI) acid. **(1 mark)**
 - Write the equation for formation of chlorine. **(1 mark)**

MARKING SCHEME

1. State **two** laboratory rules that should be followed to avoid contamination and wastage of chemicals. **(2 marks)**

- **Label all containers carrying chemicals.**
- **Turn off water and gas taps when not in use.**
- **Always work on a clean bench.**
- **Label the chemicals you are using before an experiment.**

2.

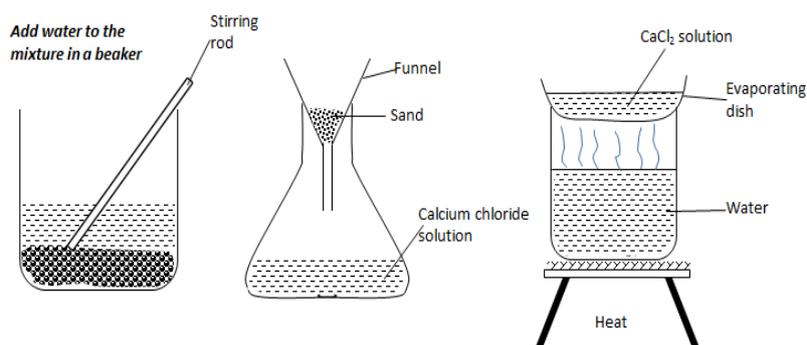
- a. Give **one** reason some of the laboratory apparatus are made of ceramics. **(1 mark)**

Does not break easily hence can withstand strong heating.

- b. Name **two** apparatus that can be used to measure approximately 75 cm³ of dilute sulphuric (VI) acid. **(2 marks)**

- **100cm³ measuring cylinder.**
- **Graduated 100cm³**

3. Draw the procedural set-ups that can be used to separate a mixture of sand and calcium chloride to obtain crystals of calcium chloride. **(3 marks)**



4. State **two** applications of chromatography. **(2 marks)**

- **In sports to identify banned substances.**
- **To test purity of drugs in pharmacy.**
- **Identify contaminants in food and drinks.**
- **Identify harmful substances in cosmetics.**

5. The below set-up was used to determine the chemical properties of carbon (II) oxide.