# Hillside Secondary School.

**(Gomba-Kifampa)**

**CHEMISTRY DEPARTMENT**

***Time: 1:30 mins***

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## Holiday Program CBC Assessment (2024)

*INSTRUCTIONS TO THE LERNER*

- ✓ *Attempt all questions on the Answer Booklet/Sheet Provided.*
- ✓ *Incorrect Formulae & unbalanced equations may lead to lose of marks.*
- ✓ *Where possible the following might be applicable.*
  ***(****Fe=56, S=32, Ca = 40, C=12, O = 16, Cl=35.5, Na=23, k=39,H=1)*

## *Mole Concept*

***1.*** Imagine you are conducting an experiment where you have *10*g of Calcium carbonate. Present the total number of Calcium carbonate molecules in the Sample. ***( 4 marks)***

***2.*** Picture a scenario where you have *3*moles of table salt. Present the total number of ions in this quantity. ***( 4 marks)***

***3.*** You encounter a scenario with *35*g of ethanol. Demonstrate how you would determine the moles of Ethanol. ***(4marks)***

***4.*** Sarah was mixing certain chemicals in the laboratory and discovered a reaction involving *15*g of sulphuric acid. Demonstrate how you would calculate the number of moles of the Acid involved in the reaction. ***(4marks)***

***5.*** Picture a scenario involving the reaction between sulphuric acid and potassium hydroxide.

*(a).* Present a stoichiometric equation and briefly short list how you achieved it. ***(4marks)***

*(b).* Using the above technique if Iron (II) Sulphide was formed by heating 64g of Sulphur with excess Iron fillings, what would be the mass of the product formed. ***(4 marks)***

END

*"Welcome back From the Holiday"*