Katwa College
Department of Chemistry
Internal Assessment Examination, 2023

Semester: V   **Paper: DSE-2**   **Full Marks: 10**

Answer the following questions   **2+2+2+2+2**

1. Calculate the mean and the standard deviation of the following set of analytical results: 15.67, 15.69, and 16.03 g.
2. Write down two significance of ε in Beer-Lambert's law.
3. 20 mg mixture of $CaCO_3$ and $MgCO_3$ are heated up to 600°C and observed 22% of weight loss near 400°C in thermogravimetric analysis. What is the ratio of Ca/Mg in the mixture?
4. Prove that multiple extraction is more efficient than a single extraction provided total volume of organic and aqueous phases and same in both the cases.
5. Write down the stationary phase and the mobile phase of Paper chromatography and TLC.