

**2020**  
**B.A. /B.Sc. Semester 1 Examination**  
**University of Calcutta**  
**CHEMISTRY – GENERAL**  
**PRACTICAL**  
**Paper : CC/GE1**  
**F.M. 30**

<b>FAKIR CHAND COLLEGE CENTRE(551)</b>
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***(ALL QUESTIONS CARRY EQUAL MARKS. 6X5=30)***

**Answer any FIVE:**

1. In the estimation of Cu(II) ions iodometrically using sodium thiosulphate solution:
  - a) Name the indicator used.
  - b) State the change of colour observed at the end point.
  - c) Write the working formula for the estimation of Cu(II).
2. Is sodium thiosulphate a primary standard substance? Give reasons in support of your answer.
3. In the standardisation of  $\text{KMnO}_4$  solution using standard oxalic acid solution if 22 ml of S(N)  $\text{KMnO}_4$  solution is required to completely oxidise 25 ml of 0.05(N) oxalic acid solution, then calculate the strength of  $\text{KMnO}_4$  solution in normality.
4. In the standardisation of  $\text{KMnO}_4$  solution against standard oxalic acid solution which acid is used, concentrated  $\text{H}_2\text{SO}_4$  or conc.  $\text{HCl}$ ? Give reasons in support of your answer.
5. In the standardization of  $\text{KMnO}_4$  solution using standard oxalic acid solution:
  - a) Write the redox reaction involved.
  - b) Name the indicator used.
  - c) State the change of colour observed at the end point.
6. Write the half cell reaction of oxalic acid as a reductant. Calculate the equivalent weight of oxalic acid. (Given, Molecular weight of oxalic acid = 126)
7. In the standardization of  $\text{KMnO}_4$  solution using standard oxalic acid solution, explain why a particular temperature range of 60-70°C is maintained?