2021
B.A./B.Sc. Semester I General Examination
University of Calcutta
CHEMISTRY
Paper GE/CC1
(PRACTICAL)
F.M. 30

FAKIR CHAND COLLEGE CENTRE (551)

[Use A4 pages and black ink only for writing answers. Write Roll number and Registration number at the top and page number at the bottom of each page. Images of answer script and admit card must be in a single pdf file.]

Answer any FIVE: **6X5=30**

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. If molecular weight of $K_2Cr_2O_7$ is M then calculate the amount of dichromate required to prepare 250 ml 0.1(N) dichromate solutions.

3. In the standardization of $KMnO_4$ solution using standard oxalic acid solution if X ml of 0.01(N) $KMnO_4$ solution is required to completely oxidize 25 ml of 0.05(N) oxalic acid solution, then calculate the volume of $KMnO_4$ solution.

4. In the standardization of $KMnO_4$ 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

5. In the standardization of $KMnO_4$ solution against standard oxalic acid solution which acid is used, concentrated H_2SO_4 or conc. HCl? Give reasons in support of your answer.

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 $KMnO_4$ solution using standard oxalic acid solution, explain why a particular temperature range of 60-70^oC is maintained?