2021
B.A./B.Sc. Semester III Honours Examination
University of Calcutta
CHEMISTRY
Paper CC7
(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.]

The figures in the margin indicate full marks

1. You are provided with an unknown concentration of Glucose (x g/mL). Calculate the concentration of supplied Glucose in g/mL by titration with Fehling's solution.

   Given data: (i) Strength of standard Glucose solution is 0.5%.
   (ii) Volume of standard Glucose solution required for standardisation of Fehling's solution (Fehling's A and Fehling's B, 10 mL each) = 15 mL.
   (iii) Volume of unknown Glucose solution consumed during titration with standardised Fehling's solution = 10.5 mL.

   (a) Write down the principle of estimation of Glucose by Fehling's solution titration method and mention the working formula.   10
   (b) Show the given data in tabular form for standardisation of Fehling's solution by standard Glucose solution.   5
   (c) Show the given data in tabular form for estimation of unknown Glucose solution against standard Fehling's solution.   5
   (d) Calculation of unknown concentration of Glucose in g/ml.   10