

2020
B.A. /B.Sc. Semester 5 Examination
University of Calcutta
CHEMISTRY – GENERAL
PRACTICAL
Paper : DSE-A
F.M. 30

FAKIR CHAND COLLEGE CENTRE(551)

Answer any FIVE:

1. a) Why NH_4Cl is used for the preparation of zinc-acetate solution? 3
b) Why buffer is added for the complexometric titration? 3
2. a) Write the composition of dolomite and how can they be estimated? 1+3
b) Write the name of two complexometric indicators? 2
3. For the estimation of dolomite, required volume of EDTA for CaCO_3 and MgCO_3 are 25 ml and 21.1 ml respectively. 25ml 0.01(M) Zinc-acetate is required for the standardization of 50ml EDTA solution. Calculate the amount of CaCO_3 and MgCO_3 in gm/lit. 3+3
4. What is Z-R reagent? Why Z-R reagent is used for the estimation of cement? 3+3
5. a) Write the composition of cement? 3
b) How Fe_2O_3 is estimated in cement? 3
6. a) Write the redox reaction for the titration of oxalic acid with KMnO_4 in acid medium and write the equivalent weight of KMnO_4 ? 2+1
b) For the standardization of KMnO_4 using oxalic acid, which type of indicator is your choice and why? 2
c) Write the starting and the end point colour of the above titration? 1
7. a) 25.5ml KMnO_4 solution is completely titrated against 25ml 0.05 (N) oxalic acid solution. Calculate the strength of the KMnO_4 solution? 3
b) Write the full name of EDTA? 1
c) Write the process by which all composition of cement except Fe_2O_3 is estimated? 2