

2019

B.Sc.

4th Semester Examination  
**CHEMISTRY (Honours)**  
(Inorganic Chemistry)

Paper - C9P

[Practical]

Full Marks : 20

Time : 3 Hours

*The figures in the margin indicate full marks.  
Candidates are required to give their answers  
in their own words as far as practicable.*

1. Estimation of total amount  $\text{Zn}^{II}$  ion present in supplied solution. 15

(a) Prepare (M/50) standard  $\text{Zn}(\text{OAc})_2 \cdot 2\text{H}_2\text{O}$  solution by accurate weighing.

(b) *Standardisation of supplied EDTA Solution*

Take an aliquot of 25 ml of the standard Zinc acetate solution in a 250 ml. Conical flask. Add

[ Turn Over ]



( 2 )

5 ml of pH – 10.5 buffer ( $\text{NH}_3$  -  $\text{NH}_4\text{Cl}$  buffer) solution and pinch amount of EBT indicator. Shake the whole solution to dissolve the solid. Titrate the solution with supplied EDTA solution till the colour changes from wine red to blue. Calculate the strength of EDTA solution.

(c) *Titration of Supplied  $\text{Zn}^{\text{II}}$  Solution*

Take 25 ml of the supplied solution into a 250 ml conical flask, dilute with ~ 20 ml of the distilled water. Add 5 ml pH ~ 10.5 buffer and pinch amount EBT indicator. Shake well to complete dissolve of solid indicator. Titrate with previously standardised EDTA solution, until the colour changes from wine red to blue.

Record the titre value and calculate the amount of  $\text{Zn}^{\text{II}}$  in gm/lit.

2. Viva voce 3

3. LNB 2

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