

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)
Chromepet, Chennai - 600 044.

B.Sc.Chemistry - END SEMESTER EXAMINATIONS - NOV'2024

SEMESTER -II

22UCHCT2004-Analytical Chemistry -II

Total Duration : 2 Hrs.30 Mins.

Total Marks : 60

Section B

Answer any **SIX** questions ($6 \times 5 = 30$ Marks)

1. What is the significance of Faraday's laws of electrolysis in electrodeposition.
2. Illustrate how ilkovic equation governs polarographic measurement and recognize the terms involved.
3. Discuss the physical/chemical phenomena causing changes in temperature in TGA.
4. Distinguish between static and dynamic TGA.
5. How is fractional crystallization used to separate a mixture of solid compounds.
6. List the factors influencing R_f value in thin layer chromatography. What are the advantages of TLC over the other chromatographic techniques.
7. Explain ascending and descending development methods used for the separation of component in mixture by paper chromatography with neat diagram.
8. Explain about the detectors used to measure the physical property of the solute in HPLC.

Section C

Answer any **THREE** questions ($3 \times 10 = 30$ Marks)

9. How is polarography used to determine trace metals in solutions.
10. What is a Soxhlet extractor, and how does it differ from simple solvent extraction? Explain with illustrative diagram.
11. Infer and illustrate the various steps involved in a thermogravimetric graph.
12. Discuss the different types of paper chromatography and compare their merits and demerits.
13. Examine the process involved in the plate theory of gas chromatography.
