Total Duration : 2 Hrs 30 Mins.   **Total Marks : 60**

Section A

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

1. With neat sketch explain dropping mercury electrode. Mention its advantages and limitations.

2. Explain the principle involved in thermo gravimetric analysis.

3. Discuss spin - spin coupling in NMR.

4. Explain the basic principles of mass spectra.

5. List out the escape sequences used in C programming.

6. Discuss the basic principles and uses of amperometry.

7. Write a brief account of thermometric titrations.

8. Explain the proton NMR spectrum of ethanol.

Section B

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

9. Explain the experimental assembly of polarography. Add a note on Ilkovic equation.

10. How is glucose estimated by polarimetry? Explain.

11. With neat block diagram explain the basic instrumentation of NMR spectroscopy.

12. Write short notes on
    a. molecular peak   b. base peak
    c. isotopic peak   d. meta stable peak

13. Write a C program to calculate pH of a given solution. Explain with two inputs.

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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. END SEMESTER EXAMINATIONS NOVEMBER-2022
SEMESTER - V
20UCHCT5012 - Analytical Chemistry

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