

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 EXAMINATION APRIL/NOV - 2021

SEMESTER - V

17UCHCT5012 - ANALYTICAL CHEMISTRY - I

<b>Total Duration : 3 Hrs</b>	<b>Total Marks : 75</b>
MCQ : 30 Mins	MCQ : 15
Descriptive : 2 Hrs.30 Mins	Descriptive : 60

Section B

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

1. Discuss the advantages and disadvantages of DME.
2. Explain the various factors affecting TGA.
3. What do you mean by spin —spin coupling? —Explain.
4. State and explain Nitrogen rule with two examples.
5. Write a brief account of variables and constants in C language.
6. Define a. Molecular peak b. Base peak c. Meta stable peak.
7. With neat sketch explain the proton NMR of ethanol.
8. Discuss the principle behind Amperometry.

Section C

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

9. Explain the current voltage curve of polarography. Add a note on Ilkovic equation.
10. With neat sketch explain the instrumentation of polarography.
11. Write a C program to determine the normality and pH of a solution.
12. Explain the various components with block diagram of TGA apparatus.
13. Write note on
  - a. DTA
  - b. Chemical shift in NMR