

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.

M.Sc.Chemistry - END SEMESTER EXAMINATIONS - APRIL 2025
SEMESTER - IV

24PCHET4A04 - Research Methodology

Total Duration : 2 Hrs. 30 Mins.

Total Marks : 60

Section B

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

1. Differentiate between primary, secondary, and tertiary sources of chemical literature with suitable examples.
2. Briefly explain the role of funding agencies in scientific research and project proposals.
3. Differentiate between primary and secondary data in research with examples.
4. Explain the general rules for tabulation of data in research.
5. Explain the purpose and significance of chemical abstracts in scientific research.
6. Describe the structure and function of the chemical abstracts issue indexes.
7. What are the key differences between research reports, theses, and journal articles?
8. Briefly explain about the presentation of tables and figures in a project report.

Section C

I - Answer any **TWO** questions ($2 \times 10 = 20$ Marks)

9. Describe the different methods used for searching, compiling, preserving, and retrieving scientific literature in chemistry.
10. Apply simple sampling techniques and explain how to determine the appropriate sample size in research.
11. Describe the various access points for searching chemical abstracts indexes and explain how they help in locating references.
12. Examine the essential components of a research report and their role in scientific communication.

II - Compulsory question ($1 \times 10 = 10$ Marks)

13. Ascertain the importance of plagiarism, copyright, and patent laws in scientific research and publication. How do these aspects influence the integrity of research writing?
