

M.Sc. DEGREE EXAMINATION, APRIL 2020
II Year IV Semester
Research Methodology

Time : 3 Hours

Max.marks :75

Section A ($10 \times 2 = 20$) Marks

Answer any **TEN** questions

1. What are the types of research?
2. Write the differences between basic research and applied research.
3. Name two secondary sources of chemical literature.
4. What is meant by citation index?
5. List the types of tables used for tabulation of data.
6. What are the basic sampling techniques?
7. Differentiate among systematic and random errors.
8. How is bibliography different from references?
9. Write the expansion of the following abbreviations.
i) et. al. ii) ibid iii) q.v. iv) i.e.
10. What is plagiarism?
11. Name any four government agencies funding for research in all disciplines of science.
12. What is a scientific method?

Section B ($5 \times 5 = 25$) Marks

Answer any **FIVE** questions

13. Discuss the nuances of qualitative and quantitative research.
14. Why is general subject index referred extensively for the search of chemical abstracts?
15. Write short notes on "importance of planning and conducting experiments".
16. Write short notes on error handling in testing hypothesis.
17. Mention the significance of the following punctuations in technical writing.
i) Parentheses ii) Semicolon iii) Comma
18. Write the importance of science citation index in research.
19. Explain the referencing styles used in RSC publications with respect to journals and books.

Section C ($3 \times 10 = 30$) Marks

Answer any **THREE** questions

20. Illustrate the characteristics of research.
21. How are collective indexes consulted in retrospective searching? Explain with a flow chart. What are CI and DI in CAS?
22. How are primary and secondary sources used for data collection? Discuss the general rules for tabulation.
23. Discuss the importance of linear regression, correlation and method of least squares for the presentation of data.
24. (a) Give the different format of writing references with examples. (5)
(b) Discuss the methods to avoid plagiarism in a scientific reporting. (5)

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