



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – CHEMISTRY

THIRD SEMESTER – NOVEMBER 2014

CH 3815 - SCIENTIFIC RESEARCH METHODOLOGY

Date : 05/11/2014

Dept. No.

Max. : 100 Marks

Time : 09:00-12:00

Part-A

Answer all the questions. Each question carries two marks:

10X2=20

1. What is research methodology?
2. Compare experimental and descriptive research.
3. Abbreviate the journals: (a) HelveticaChimicaActaand
(b) Journal of Computational Chemistry.
4. Name two secondary sources of chemical literature.
5. How would you differentiate the editor of a book and a particular edition of a book while writing areference in a research article?
6. Give the expansion and meaning of the abbreviations: (a) etal. and(b) ibid.
7. What are footnotes? Mention their significance.
8. What is CAS registry number? Mention its significance.
9. Mention any two types of outline methods.
10. What is ASAP alert?

Part-B

Answer any eight questions. Each question carries five marks:

8X5=40

11. Write a note on scientific research methodology.
12. What are Awareness Services? Explain any two.
13. Write notes on (a) Current Content and (b) Indus Medicus.
14. How is *Beilstein'sHandbuch der OrganischenChemie* important as a source of literature for organic compounds?
15. a. Mention two journals which publish rapid communications in chemistry.
b. Mention two journals which publish rapid communications only in organic chemistry.
16. Write a note on general subject terms used in semiannual volume indexes and CA weekly issues.
17. Explain the general format of a research proposal to the funding agencies.
18. Discuss the method of presentation of figures and graphs in a thesis.
19. How are google scholar and scopus helpful to know the status of citation of each publication?
20. a. Mention the significance of the following abbreviations: (i) pp, (ii) ca., and(iii) q. v.
b. Explain the following Latin words: (i) *id est* (ii) *exempli gratia*. How are they abbreviated?
21. Explain the layout of abstracts in CA weekly issues.
22. How is a laboratory note book maintained?

Part-C

Answer any four questions. Each question carries ten mark:

4X10=40

23. a. Explain the nature of applied and basic research?
b. Explain exploratory and predictive research.
24. a. Give an account of CA collective indexes and volume indexes.
b. Give an account of the different types of Treatises in organic chemistry.
25. Briefly describe the different indexes and abstracts in science and engineering.
26. a. What is science citation index?Mention its significance.
b. Give the different format of writing references with examples.
27. a. Describe (a) Dictionary of Organic Compounds and (b) Theilheimer's Annual Reports on Organic Synthesis.
b. How is scifinder useful to identify journal articles and the status of journals?
28. a. Explain the format of a research thesis.
b. Howcould tautology, redundancy, and superfluous phrases be eliminated in scientific writing?
