



**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**

**M.Sc. DEGREE EXAMINATION – CHEMISTRY**

**THIRD SEMESTER – APRIL 2016**

**CH 3815 - SCIENTIFIC RESEARCH METHODOLOGY**

Date: 28-04-2016  
Time: 09:00-12:00

Dept. No.

Max. : 100 Marks

**Part-A**

*Answer ALL questions.*

**(10 × 2 = 20)**

1. What is the significance of a research?
2. What do you mean by quantitative research.
3. Abbreviate the following journals as they appear in references.  
(i) Inorganica Chimica Acta                      (ii) Synthetic Letters  
(iii) Angewandte Chemie                          (iv) Chemical Reviews
4. Name the various abstracts available in science and technology.
5. How are patents referred in a journal?
6. What are the different types of technical communications?
7. Write the expansion of the following abbreviations.  
i) et. al.                      ii) ibid                      iii) q.v.                      iv) i.e.
8. What are the differences between foot note and reference?
9. Write the classification of outlining.
10. How is ASAP alerts nowadays called?

**Part-B**

*Answer any EIGHT questions.*

**(8 × 5 = 40)**

11. What are the different types of research methodology? Explain any one in detail.
12. Compare between fundamental and applied research.
13. How do reviews and textbooks serve as secondary sources?
14. Write short notes on (a) dictionary of organic compounds and (b) current contents.
15. What are CA collective indexes? Explain them in detail.
16. How are graphs and tables presented in thesis? Explain with suitable examples.
17. Discuss the various referencing styles with suitable examples.
18. What is the format and condition for writing a research paper?
19. Mention the significance of following punctuations in technical writing.  
i) period                      ii) semicolon                      iii) comma
20. How are tautology and imprecise words eliminated in scientific writing?
21. Write the importance of chemport and STN international in research.
22. How are google scholar and scopus helpful to learn the status of the citation of each publication?

**Part-C**

*Answer any FOUR questions.*

**(4 × 10 = 40)**

- 23a. What are the purposes of research?  
b. Compare between deductive and inductive research.
- 24a. What are treatises? Explain any one in detail.  
b. Discuss in detail about the Merck index.
25. Describe the searching methods and the process of locating a journal article.
26. How is a project proposal written? Explain the scientific approach of it.
- 27a. Who are primary audiences? What is their role in technical communication?  
b. How is scifinder useful to identify a journal and its status?
28. Write a short note on the following.  
a) Chemport      b) ScienceDirect

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