



Date: 29-10-2018

Dept. No.

Max. : 100 Marks

Time: 09:00-12:00

**Part-A**

*Answer ALL questions.*

**(10 × 2 = 20)**

1. What are the types of research?
2. How is basic research converted into applied research?
3. Compare notes with communications.
4. Mention the importance of index guide to search the chemical abstract of a chemical substance.
5. Name a few online search portals for scientific information.
6. Who are the secondary audiences?
7. What is parallel outlining? Give an example.
8. Name any four government agencies funding for research in all disciplines of science.
9. What is the purpose of writing an abstract?
10. How is bibliography different from references?

**Part-B**

*Answer any EIGHT questions.*

**(8 × 5 = 40)**

11. Discuss the nuances of qualitative and quantitative research.
12. Give a detailed account on “Chemical Abstract” in research analysis.
13. How is the search for a journal through chemical abstract services carried out?
14. Write a short note on any three types of secondary sources.
15. How do scifinder and Google scholar provide valuable information for a complete search of literature?
16. What are the needs of technical communications? Explain with suitable examples.
17. What are the guidelines to be followed for effective outlining of topics?
18. How do tautology and redundancy affect scientific writing? Mention suitable alternatives.
19. Why is referencing considered as one of the important features of scientific reporting?
20. What are the guidelines to be followed to present tables and graphs in a thesis?
21. Bring out the differences between summary and abstract.
22. How is time-frame suitably projected in a proposal to monitor the research work?

### Part-C

Answer any **FOUR** questions.

(4 × 10 = 40)

- 23a. Discuss in detail on the methodology adopted in chemical research. (5)
- b. Give an account on historical and exploratory research. (5)
- 24a. Write a short note on (i) CRC handbook and (ii) Merck index. (3+3)
- b. How is searching of chemical abstract done on a retrospective basis? (4)
- 25a. Discuss the methods to avoid plagiarism in a scientific reporting. (5)
- b. Bring out the differences between technical and non-technical communications. (5)
- 26a. What are the challenges awaiting a technical expert to prepare a report for a non technical audience?  
Explain with suitable example. (5)
- b. Write a short note on (i) STN international (ii) ASAP alerts (5)
- 27a. How are semicolon and comma properly used in scientific reports? Give suitable examples.(5)
- b. Discuss the referencing styles of journals and books followed by any two leading publishers. (5)
28. Write a project proposal for a Major research project (not more than one and half pages) on any one of the recent research topics in Chemistry.

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