

**Ph.D. (CHEMISTRY) / M.Phil. (CHEMISTRY)
(PHDCHEM / MPHILCHEM)**

Term-End Examination

December, 2022

RCH-001 : RESEARCH METHODOLOGY

Time : 3 hours

Maximum Marks : 100

Note : Answer *all* the questions given.

1. What is the difference between research methods and research methodology ? Explain with the help of examples. 10
2. Name any two funding agencies in Chemistry in India and describe their role. 10
3. How is a research paper written ? Give the importance of abstract in a research paper. 10
4. How is ICT helpful in performing research experiments ? Explain giving examples. 10
5. Differentiate between traditional and online classroom. Illustrate your answer. 10

6. Why is it important to have a well-formulated research question ? Elaborate and illustrate with examples in chemical research. 10
7. What is a research design ? How is it different from a research problem ? Explain with the help of examples. 10
8. Explain the term hypothesis in research. Describe the steps of hypothesis testing. 10
9. Enumerate the major categories of scientific misconduct in research. 10
10. Write a short note on any **one** of the following : 10
- (a) Risk Assessment in a Chemistry Lab
 - (b) Fire Protection in Laboratory
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