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RCH-001

**M.PHIL / Ph.D. IN CHEMISTRY****(M.Phil. Chem./Ph.D. Chem.)****Term-End Examination****December, 2019****RCH-001 : RESEARCH METHODOLOGY***Time : 3 Hours**Maximum Marks : 100*

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**Note : Answer all questions.**

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1. Discuss the importance of research methodology in a research study. 10
2. Define research and write the objectives of carrying out a research work. 10
3. (a) Discuss the need for writing an abstract for publication in a journal. 5
- (b) How is a formula entered in an EXCEL sheet ? Explain with the help of an example. 5

4. (a) What is the significance of writing the literature review in a thesis ? 5
- (b) How is the literature survey conducted for chemistry research ? 5
5. 'ICT has influenced the availability of library resources'. Discuss. 10
6. Compare the features of traditional classroom teaching with that of online teaching. 10
7. Elaborate upon the criteria for the selection of a good research problem 10
8. What is meant by incompatibility of chemicals ? How is it significant in the storage of different chemicals in a chemistry laboratory ? Write the incompatible chemicals for hydrocarbons, potassium permanganate and acetone. 10
9. Describe in brief all the types of hypotheses. 10
10. Discuss 'misconduct' with reference to ethical principles in chemistry research. 10