

No. of Printed Pages : 3

Roll No.

0161

Ph. D. Course Work EXAMINATION,

May 2019

PHYSICS

PHY901B

Research Methodology

Time : 3 Hours]

[Maximum Marks : 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Examine will attempt *Five* questions selecting at least *one* question from each Unit. All questions carry equal marks.

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P.T.O.

Unit I

1. Describe the different types of research. What are the basic ethics of research and rules of plagiarism ? **15**

Or

2. Discuss the importance of the following research components : **15**
 - (a) Literature searching
 - (b) Quality research
 - (c) Patent law

Unit II

3. Discuss the basics methodology used for achieving the research objectives and also discuss the basic component of research paper writing. **15**

Or

4. What is the basic structure and components of research report writing and discuss how computer software like La-Tex and MS words helps in research report writing. **15**

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Unit III

5. Write note on Gaussian distribution, Binomial distributions and Poisson distribution generally used for analysis of data. **15**
6. How one can estimate means, proportions and Chi-square test for the analysis of research data, for illustration you may choose data of your choice. **15**

Unit IV

7. How computer is used as a tool in research ? Describe the functions of the following computer units (a) Memory Unit (b) Arithmetic logical unit (c) Control Unit. **15**

Or

8. Describe in detail the linear and non-linear curve fitting and also explain how computer helps in this. **15**

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