

**MOTHER TERESA WOMEN'S UNIVERSITY  
KODAIKANAL**

**COURSE WORK EXAMINATION: RESEARCH METHODOLOGY**

**MATHEMATICS**

Unit 1: Research Methodology: An Introduction

Meaning of Research – Objectives of Research – Motivation in Research – Types of Research – Research Approaches - Significance of Research – Research Methods versus Methodology – Research and Scientific Methods – Importance of knowing How Research is Done – Research Process – Criteria of Good Research – Problems Encountered by Researchers in India

Unit II: Defining the Research Problem

What is a Research – Selecting the Problems – Necessity of Defining the Problem – Technique involved in Defining a Problem – An Illustration- Conclusion.

Unit III: Research Design

**Research ethics should be applied in each stage such as in design, planning, and evaluating a research project.** Meaning of Research Design – Features of a Good Design – Importance Concepts Relating to Research Design – Different Research Design – Basic Principles of Experimental Designs - Conclusion

Unit IV :

Methods of Secondary Data – Selection of Appropriate Methods for Data Collection – Meaning of Interpretation – Why Interpretation? – Technique of Interpretation – Precaution in Interpretation – Significance of Report Writing – different Steps in Writing Report – Layout of the Research Report – Types of Reports – Oral Presentation – Mechanics of Writing a Research Report – Precaution for Writing Research Report – Conclusions

Unit V : The Computer : Its Role in Research

The computer and Computer Technology – the computer system – important Characteristics – The Binary number System – Computer Applications – Computers and Researcher

Reference Book

C.R.Kothari, 'Research Methodology, Methods and Techniques', Second Revised Edition, New Age International Publishers, New Delhi 2004

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