

**SEMESTER IV**  
**UCHAJ20 - INTRODUCTION TO RESEARCH METHODOLOGY**

<b>Year:</b> II <b>Sem:</b> IV	<b>Course Code:</b> UCHAJ20	<b>Title of the Course:</b> Introduction to Research Methodology	<b>Course Type:</b> Theory	<b>Course Category:</b> Core	<b>H/W</b> 5	<b>Credits</b> 4	<b>Marks</b> 100
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**Objectives**

1. To understand and apply research approaches techniques and strategies in the appropriate manner for managerial decision making.
2. To apply a range of quantitative and / or qualitative research techniques to business and management problems / issues.
3. To demonstrate knowledge and understand data analysis and interpretation in relation to the research process.
4. To illustrate various types of data and methods for collecting data.
5. To utilize statistical tools to analyze aspects of research and to draft research report.

**COURSE OUTCOMES (CO)**

1. Understand the various types of research and apply it in real life study.
2. Distinguish the types of research design, understand the concept of Hypothesis and formulate the same.
3. Comprehend the various types of sampling techniques, scaling techniques and measurements.
4. Distinguish various types of data collection methods and enable the students to draft questionnaire incorporating the scaling techniques.
5. Enable the students to analyze data using statistical packages and to follow a systematic process to write a research report.

CO	PO					
	1	2	3	4	5	6
CO1	H	L	H	L	M	L
CO2	H	L	H	L	H	L
CO3	H	M	H	L	H	M
CO4	H	L	H	M	H	L
CO5	H	L	H	M	H	L

CO	PSO

	1	2	3	4	5	6
<b>CO1</b>	H	M	H	M	H	M
<b>CO2</b>	H	M	H	M	H	M
<b>CO3</b>	H	M	H	M	M	M
<b>CO4</b>	H	M	H	M	M	M
<b>CO5</b>	H	M	H	M	H	M

(Low - L, Medium - M, High - H)

## Syllabus

### Unit I: Introduction

Definition of research – meaning – objectives (K1, K2)

Types of research (K1, K2, K3, K4)

Research process (K1, K2, K3)

Qualities of a researcher (K1, K2)

Criteria of good research (K1, K2, K3, K4)

Problems encountered in research (K1, K2, K3)

### Unit II: Research Design

Defining research problem (K1, K2)

Research design- Features of good research design (K1, K2, K3)

Types of research design – factors affecting research design (K1, K2, K3)

Hypothesis- Meaning – Definition – Need for hypothesis (K1, K2, K3, K4)

Formulation of hypothesis – Types of hypothesis (K1, K2, K3, K4)

Test of hypothesis – Type I and Type II error (K1, K2, K3, K4)

### Unit III: Sampling and Scaling

Sampling techniques (K1, K2, K3)

Types of sampling (K1, K2, K3, K4)

Merits and demerits of Probability Sampling (K1, K2, K3)

Merits and demerits of Non Probability Sampling (K1, K2, K3)

Scaling – Types (K1, K2, K3, K4)

Measurements – Classification (K1, K2, K3)

### Unit IV: Data Collection

Collection of primary and secondary data (K1, K2, K3)

Interview techniques (K1, K2, K3)

Survey and interview method – merits and demerits (K1, K2, K3)

Questionnaire – pre requisites of using questionnaire (K1, K2, K3, K4)

Structured and Unstructured questionnaire (K1, K2, K3, K4)

Types of secondary data (K1, K2, K3)

### Unit V: Data analysis and Report writing

Steps in report writing (K1, K2, K3, K4)

Introduction to Statistical Packages (K1, K2, K3)

Descriptive: Percentage Analysis – Charts (K1, K2, K3, K4)

Inferential Analysis: Mean- Median- Mode (K1, K2, K3, K4)

Range- Variance- Standard Deviation (K1, K2, K3, K4)

Correlation – Regression- Chi-square – ANOVA (Only Theory) (K1, K2, K3)

**Textbooks**

1. C.R. Kothari, Research Methodology Methods and Techniques, New Age International Publishers, 4<sup>th</sup> Edition, 2019.
2. P. Ravilochanan, Research Methodology, Margham Publication, First Edition 2012.

**Reference books**

1. B.N. Ghosh, Scientific Methods and Social Research, Sterling Publishers Pvt. Ltd., Delhi, 4<sup>th</sup> Edition 2015.
2. Dipak Kumar Bhattacharyya, Research Methodology, Excel Books, 2<sup>nd</sup> Edition, 2006.
3. Ajai Gaur, Statistical Methods for practice and Research, 1<sup>st</sup> Edition, 2006.