

Course No. COM-203

**RESEARCH METHODOLOGY AND STATISTICAL  
ANALYSIS**

**Marks: 80**

<b>BLOCK -1</b>	<b>BUSINESS RESEARCH BASICS</b>	<b>MARKS -16</b>
<b>Unit - I</b>	: Introduction to Business Research	
<b>Unit - II</b>	: Types of Research, Research Plan & Design	
<b>Unit - III</b>	: Collection of Data, Sampling	
<b>Unit - IV</b>	: Measurement of Scaling Techniques	
<b>BLOCK -2</b>	<b>DESCRIPTIVE STATISTICS</b>	<b>MARKS -16</b>
<b>Unit - I</b>	: Processing of Data, an overview of Diagrammatic & Graphic Presentation, Measure of Central Tendency	
<b>Unit - II</b>	: Measure of variation, skewness, Correlation & Simple Regression (two variable case).	
<b>Unit - III</b>	: Time Series Analysis and Index Numbers	
<b>BLOCK -3</b>	<b>PROBABILITY &amp; THEORETICAL DISTRIBUTION</b>	<b>MARKS -16</b>
<b>Unit - I</b>	: Probability and Probability Rules - Classical, Relative, Subjective, Addition & Multiplication Probability Models	
<b>Unit - II</b>	: Conditional Probability and Baye's Theorem	
<b>Unit - III</b>	: Probability Distribution - Binominal, Poison & Normal, their characteristics & applications	
<b>Unit - IV</b>	: Statistical Decision Theory	

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**BLOCK - 4 STATISTICAL INFERENCE & TESTING**

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**MARKS -16**

- Unit - I** : Statistical Estimation & Testing, Point & Interval estimation of population mean
- Unit - II** : Proportion & variance
- Unit - III** : Statistical Testing - hypotheses and errors, sample size determination.
- Unit - IV** : Large & Small Sampling Tests. (Parametric)
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**BLOCK - 5 NON-PARAMETRIC TESTS & REPORTING**

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**MARKS -16**

- Unit - I** : Application of Non-Parametric Tests- Comparison with Parametric Tests
- Unit - II** : Rank Correlation Test, Chi-square Tests, Sign Test, Median Test, Wilcoxon Signed Test, Kruskal-Walle's Tests
- Unit - III** : Interpretation of Statistical Data, Report-writing-steps, problems, content, precaution, utility characteristics

***Suggested Readings***

1. Richard I & Levin, Statistics for Management (Prentice Hall of India, New Delhi).
2. B.L. Agrwall, Basic Statistics (New Age International (P) Ltd. Publishers, New Delhi).
3. Larsen, Mark & Cooil, Statistics for Applied Problem Solving and Decision Making (International Thomson Publication, London).
4. S.C. Gupta, Fundamental of Statistics (Himalaya Publishing House, Delhi).
5. C.R. Kothari, Research Methodology (Wishwa Prakashan, New Delhi).