RESEARCH METHODOLOGY

Subject Code – MREM0-101   **L T P C**   **Duration – 45 Hours**

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UNIT–I (11 Hrs)

Introduction to Research: Meaning, Definition, Objective and Process

Research Design: Meaning, Types - Historical, Descriptive, Exploratory and Experimental

Research Problem: Necessity of Defined Problem, Problem Formulation, Understanding of Problem, Review of Literature

Design of Experiment: Basic Principal of Experimental Design, Randomized Block, Completely Randomized Block, Latin Square, Factorial Design.

Hypothesis: Types, Formulation of Hypothesis, Feasibility, Preparation and Presentation of Research Proposal

UNIT–II (10 Hrs)

Sources of Data: Primary and Secondary, Validation of Data

Data Collection Methods: Questionnaire Designing, Construction

Sampling Design & Techniques – Probability Sampling and Non Probability Sampling

Scaling Techniques: Meaning & Types

Reliability: Test – Retest Reliability, Alternative Form Reliability, Internal Comparison Reliability and Scorer Reliability

Validity: Content Validity, Criterion Related Validity and Construct Validity

UNIT–III (13 Hrs)

Data Process Operations: Editing, Sorting, Coding, Classification and Tabulation

Analysis of Data: Statistical Measure and Their Significance, Central Tendency, Dispersion, Correlation: Linear and Partial, Regression: Simple and Multiple Regression, Skewness, Time series Analysis, Index Number

Testing of Hypothesis: T-test, Z- test, Chi Square, F-test, ANOVA

UNIT – IV (11 Hrs)

Multivariate Analysis: Factor Analysis, Discriminant Analysis, Cluster Analysis, Conjoint Analysis, Multi Dimensional Scaling

Report Writing: Essentials of Report Writing, Report Format

Statistical Software: Application of Statistical Softwares like SPSS, MS Excel, Mini Tab or MATLAB Software in Data Analysis

Each Student has to Prepare Mini Research Project on Topic/ Area of their Choice and Make Presentation. The Report Should Consists of Applications of Tests and Techniques Mentioned in The Above UNITs

Recommended Books

1. R.I Levin and D.S. Rubin, 'Statistics for Management', 7th Edn., Pearson Education New Delhi.
2. N.K. Malhotra, 'Marketing Research–An Applied Orientation', 4th Edn., Pearson Education New Delhi.
3. Donald Cooper, 'Business Research Methods', Tata McGraw Hill, New Delhi.
4. Sadhu Singh, 'Research Methodology in Social Sciences', Himalaya Publishers.

5. Darren George & Paul Mallery, 'SPSS for Windows Step by Step', Pearson Education New Delhi.

6. C.R.Kothari, 'Research Methodology Methods & Techniques', 2nd Edn., New Age International Publishers.