



Syllabus for the Ph.D. Entrance Examination

Management (Research Methodology Paper)

Course Description

This paper is designed to assess candidates' understanding of the fundamental principles, processes, and applications of research in social sciences and management. It focuses on developing a conceptual foundation in research design, data collection, analysis, and interpretation. The syllabus emphasizes both qualitative and quantitative approaches and prepares candidates for independent doctoral-level research.

Learning Outcomes

After successful preparation, candidates will be able to:

- Explain the key concepts, characteristics, and types of research.
 - Design and execute a systematic research study using appropriate methodologies.
 - Apply sampling techniques and data collection tools effectively.
 - Analyze and interpret data using suitable statistical techniques.
 - Prepare and present research reports adhering to academic and ethical standards.
-

Detailed Syllabus

Unit I: Fundamentals of Research

1. Meaning, nature, objectives, and significance of research
 2. Types and classification of research – Basic, Applied, Descriptive, Analytical, Quantitative, Qualitative
 3. Research process and steps involved in scientific inquiry
 4. Criteria of good research and common research problems
 5. Ethics in research and intellectual property rights
-

Unit II: Research Problem, Design, and Hypothesis

1. Identification and formulation of research problems
 2. Review of literature and research gap analysis
 3. Research design – Exploratory, Descriptive, Experimental, and Diagnostic
 4. Concept and formulation of hypotheses
 5. Measurement and scaling techniques – reliability and validity
-

Unit III: Sampling and Data Collection

1. Sampling theory and its significance
 2. Types of sampling – probability and non-probability methods
 3. Determination of sample size and sampling errors
 4. Primary and secondary data – sources and limitations
 5. Tools and techniques of data collection – questionnaires, schedules, interviews, and observation
-

Unit IV: Data Analysis and Interpretation

1. Data coding, classification, tabulation, and editing
 2. Descriptive statistics – mean, median, mode, standard deviation, and variance
 3. Correlation and regression analysis
 4. Hypothesis testing – t-test, chi-square test, ANOVA, and non-parametric tests
 5. Use of computer applications and statistical software (SPSS, Excel, R) in research
-

Unit V: Report Writing and Research Dissemination

1. Structure and format of research report and thesis
 2. Writing styles – APA, MLA, and other referencing systems
 3. Bibliography, citation management, and plagiarism checking
 4. Presentation of research findings and publication ethics
 5. Use of research repositories, databases, and digital tools for dissemination
-

Suggested Reading

- C.R. Kothari & Gaurav Garg – *Research Methodology: Methods and Techniques*
- Uma Sekaran & Roger Bougie – *Research Methods for Business*
- William G. Zikmund – *Business Research Methods*
- Ranjit Kumar – *Research Methodology: A Step-by-Step Guide for Beginners*
- Naresh Malhotra – *Marketing Research: An Applied Orientation*
- Creswell, J.W. – *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*