



Ph.D. Admission: MITSDAT 2026-27

Syllabus

Paper – I Research Methodology (Common to all Disciplines)

Unit – I: Introduction to Research

Meaning, nature and objectives of research-Characteristics of good research-Types of research-Research Process-Identification of research problem-Review of literature

Unit – II: Research Design

Meaning and importance of research design-Types of research design-Formulation of hypothesis-Variables (Independent & Dependent)-Research gap identification

Unit – III: Sampling Techniques

Census vs Sample-Sampling Design-Probability sampling -non-probability sampling-Sample size determination

Unit – IV: Data Collection & Measurement

Sources of data-Methods of data collection-Measurement & Scaling Techniques-Reliability and Validity

Unit – V: Data Processing & Statistical Analysis

Editing, Coding, Classification, Tabulation-Descriptive statistics

Reference

Kothari, C. R., & Garg, G. (2019). *Research methodology: Methods and techniques* (4th ed.). New Age International Publishers.

Kothari, C. R. (2004). *Research methodology: Methods and techniques* (2nd ed.). New Age International Publishers.