



DEPARTMENT OF STATISTICS
Ph.D. Entrance Exam Syllabus – 2022

Univariate, Bivariate and Multivariate Data Analysis

Measures of Central Tendency; Measures of Dispersion: and Measures of Shape; Measures of Association; Multiple Regression; Time Series.

Probability and Probability Distributions

Theory of Probability; Random Variables: Discrete Probability Distributions; P.M.F., Characteristics, Applications Continuous Probability Distributions; Exact Sampling Distributions - Chi Square, t and F distributions; Continuous Distributions (Exact Sampling) - P.D.F., Characteristics, Applications

Estimation and Inference

Sampling Theory – Sampling Methods and Sampling Distributions; Estimation; Testing of Hypothesis; Large Sample Tests; Exact Sample Tests

Foundations of Mathematics

Basics of Matrix Algebra; Numerical Analysis

Operations Research

Linear Programming Problem; Transportation Problem; Assignment Problem; Queuing Theory; Simulation, Basics of Stochastic Processes