IDC-419: INTER DISCIPLINARY COURSE

DEPARTMENT OF STATISTICS

(2023-2025)

ELECTIVE COURSE (OPEN ELECTIVE) SEMESTER-II IDC: BASIC STATISTICS AND DATA ANALYSIS- 3 CH

Objective: To understand the concept of Basic Statistics and Data Analysis for processing and imparting knowledge tools to analyze sets of data to gain useful business understanding.

CO-1 Remember and understand the basic concepts/Principles of Basic Statistics and Data Analysis

CO-2 Analyze the Various Concepts to understand them through case studies

CO-3 Apply the knowledge in understanding practical problems

CO-4 Execute/Create the Project or field assignment as per the knowledge gained in the course

Unit-I

Definition - Scope and limitations of Statistics - Collection of data - Census. Sampling surveys - Classification and tabulation - diagrammatic and graphical representation of data - Nominal, Ordinal and Interval scaling.

Unit-II

Measures of central tendency - Measures of dispersion and Coefficient of variation - Problems based on raw data and grouped data - Moments - raw and central - Measures of skewness - Measures of Kurtosis and their applications.

Unit-III

Basics of Curve fitting: Meaning and types; Principle of least squares - linear, nonlinear, exponential and growth curves.

Test of relationship: Meaning of Correlation and type: Simple and Rank Correlation; Regression analysis - Problems based on raw data and grouped data.

Books Recommended:

1. Bansilal and Arora (1989). New Mathematical Statistics, Satya Prakashan, New Delhi.
2. Gupta. S.C. & Kapoor,V.K. (2002) . Fundamentals of Mathematical Statistics , Sultan Chand & Sons Pvt. Ltd. New Delhi.
3. Goon A.M. Gupta. A.K. & Das Gupta, B (1987) . Fundamentals of Statistics, Vol.2, World Press Pvt. Ltd., Calcutta.
4. Kapoor, J.N. & Saxena, H.C. (1976) . Mathematical Statistics , Sultan Chand and Sons Pvt. Ltd, New Delhi.