MSC (CA&IT) - Semester: II
(Effective from year 2023-24)

Course Code:	CAIT-204-P	Course Title:	Practical Skills in Statistical Data Analysis
Course Credits:	04	Hour of Teaching/Week:	08
Internal Assessment Marks:	50	External Exam Marks:	50
Exam Duration	2.5 Hrs		

Practical Implementation of the following topics should be incorporated using suitable practical tools/Languages like R Studio, Python, Etc…..

Collection of data, classification and tabulation of data, Types of data: Primary data, Secondary data, Presentation of data Diagrammatic and Graphical Representation: Histogram, frequency curve, frequency polygon, stem and leaf chart.

Loading Data (Reading Tabular Data files, Reading CSV files, Importing data from excel) , Manipulating Data (Selecting rows/observations, Selecting columns/fields, Merging data, Relabeling the column names, Converting variable types, Data sorting, Data aggregation), Commonly used Mathematical Functions , Commonly used Summary Functions , Commonly used String Functions

Data visualization (Box plot , Histogram, Pie graph , Line chart , Scatter plot)

Implementation of Central Tendency and Dispersion (Arithmetic Mean (A.M.), Mode, Median, Geometric Mean (G.M.), Harmonic Mean (H.M.), Weighted Mean and Standard Deviation)

Implementation of Correlation (correlation-scatter diagram, Karl Pearson's Coefficient of Correlation and Spearman's rank Correlation)

Implementation of Linear Regression and plot it on graph

External Exam Format : As per Table 1.1, 1.2 and 1.3