SYLLABUS

Objective: The objective of this paper is to help the students in understanding mathematical and statistical tools in business decisions.

UNIT I

Matrices and Determinants: Definition of a Matrix. Types of Matrices; Algebra of Matrices; Properties of Determinants; Calculation of Values of Determinants upto Third Order, Ad-Joint of a Matrix, Elementary Row or Column Operations; Inverse of a Matrix. Solution of a System of Linear Equations having Unique Solution and Involving not More Than Three Variables.

Differentiation !Idea of Simple Derivative of different Functions (excluding trigonometric function). Maxima and Minima of Functions of One Variable only

UNIT II

Introduction: Statistics as a Subject; Statistical Data: Meaning and Types, Collection and Rounding of Data, Classification and Presentation of Data.

Analysis of Univariate Data: Construction of a Frequency Distribution; Concept of Central Tendency and Dispersion-and Their Measures; Measures of Skewness; Concept of Kurtosis.

Time Series: Meaning, Components, Models, Fitting Linear and Quadratic Trend

Index Number: Meaning, Types, and Uses: Methods of Constructing Price and Quantity Indices (Simple and Aggregate); Tests of Adequacy; Chain-Base Index Numbers; Base Shifting, Splicing, and Deflecting; Problems in Constructing Index Numbers; Consumer Price Index.

Practical work: Collection, Classification and Presentation of data using Microsoft Excel