

B.C.A. Part I Semester I
Paper III
STATISTICAL METHODS

UNIT- I:

Introduction - Definition of Statistics, Importance and scope of Statistics, Limitations of statistics, Distrust of Statistics. Statistical Data Collection - Primary and Secondary data, Methods of Collecting Primary data, Sources and Secondary Data, Census and Sample Investigation. Presentation of statistical Data - Classification, Tabulation, Frequency Distribution, Diagrams and Graphs. Frequency Distributions and

UNIT- II :

Measures of Central Tendency - Frequency Distribution, Continuous Frequency Distribution, Graphic Representation of a Frequency Distribution Average or Measures of Central Tendency or Measures of Locations, Requisites for an ideal Measure of Central Tendency Arithmetic: Mean Median, Mode, Geometric Mean and Harmonic Mean, Weighted Average, Relationship amongst different Averages.

UNIT- III:

Measures of Dispersion, Skewness and Kurtosis - Meaning and Significance of Dispersion, Methods of Measuring Dispersion - Range, Quartile, Mean Deviation, Standard Deviation, Coefficient of Skewness, Kurtosis, Coefficient of Dispersion, Coefficient of Variation.

UNIT- IV:

Correlation and Regression - Definition of Correlation, . Scatter Diagram, Karl Pearson Coefficient of Correlation, Limits for Correlation Coefficient, Definition of Regression, Lines of Regression, Regression Curves, Regression coefficients, properties of Regression coefficients, Correlation Analysis vs. Regression Analysis.

Reference Books:

- 1.S Sastry Introduction to Numerical Analysis
- 2.Y. Rajaraman, Computer Oriented Numerical Methods - Prentice Hall Publication
- 3.Gupta and Kapoor Fundamental of Mathematical Statistics
- 4.Brian Flowers Introduction to Numerical Methods in C++ By. (Oxford)
- 5.E. Balaguruswamy, Numerical Methods - Tata McGraw Hill Publication
- 6.Srimanta Pal Numerical Methods (Oxford)
- 7.K Sankara Rao Numerical Methods for Scientists & Engineers [PIII].
- 8.Manish Goyal Computer Based Numerical And Statistical Techniques (Laxmi)