B.Com.: Semester-II BCR203: BUSINESS STATISTICS	
Teaching Scheme	**Examination Scheme**
Lectures: 3 hrs/Week	Class Test – 12 Marks
Tutorials: 1 hr/Week	Teachers Assessment – 6 Marks
Credits: 4	Attendance – 12 Marks
	End Semester Exam – 70 Marks

Course Objective

To familiarize students with the basic statistical tools used to summarize and analyze quantitative information for business decision making.

Course Learning Outcomes

After completing the course, the student shall be able to:

CO1: explain the importance of Statistics in Business and Management.
CO2: explain basic methods of business statistics which are immensely useful for economic problems.
CO3: solve the problems related to measures of central tendency, variation, significance of measuring variation and the time series analysis.
CO4: understand uncertainty in business world and its economic interpretation.
CO5: understand the idea for handling large sized data problems.
CO6: solve the range of problems using the techniques covered.

Unit I
Introduction: Meaning, Scope, Importance and Limitations of Statistics. **Statistical Investigation:** Planning of statistical investigation, Census and concepts of statistical population and sample, sampling methods Collection of Primary and Secondary data, classification and Tabulation of data, Frequency distribution.
Unit II
Statistical Average: Arithmetic, geometric and Harmonic means, Mode Median, Quartiles and percentiles, Simple and weighted averages; Uses and Limitations of different averages. **Diagrammatic and Graphic Presentation:** Histogram, Frequency polygon. Frequency curve and Ogive curves; Graphic location of Mode, Median and Quartiles.
Unit III
Dispersion and Skewness: Range; Quartile Deviation; Mean Deviation and their coefficients, Standard Deviation and Coefficient of Variation; Skew-ness and its coefficients.
Unit IV
Correlation, types of correlation, importance of correlation; Degree of correlation & regression: Karl person's coefficient of correlation, Probable Error & interpretation of coefficient of correlation; Rank Difference Method and Concurrent Deviation Method, merits & demerits; Methods of correlation, Standard error. **Regression Analysis:** Principle of regression lines; Regression equations and estimation. Application of Regression line.

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Unit V

Index Numbers: Utility of index numbers. Problems in the construction of index numbers, simple and weighted index number, Base shifting, Fisher's ideal index number and Reversibility tests, Application of Index Numbers

Analysis of Economic Time Series: Component of time Series, calculation of Secular Trend, Moving Average method and method of Least squares, Introduction to Statistical Softwares.

Suggested Readings

- D.N. Elhance, Fundamentals of Statistics.
- S.C. Gupta and Indra Gupta, Business Statistics, Himalaya Publication House, New Delhi.
- R.P. Hooda, Statistics for business and Economics.
- S.P. Gupta, Fundamentals of Statistics.
- Lewin and Rubin, Statistics for Management.
- Tondan, Ravi: Business Statistics.

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