Programme: B.Com LSM   **Semester: II**

BUSINESS STATISTICS

Course Code: 18BL202   **No. of Hours: 60**

COURSE OBJECTIVES:

- To expose students to various statistical measures widely used in various business disciplines.
- To provide basic knowledge of statistics and their application to business situations.

LEARNING OUTCOMES:

- Business statistics provide a sound base on which business decisions could be taken.
- To enable students to understand the applicability of statistics in research work.
- Enables students to concise depiction of large chunk of data diagrammatically.

UNIT 1:   **5 HRS**

Introduction to statistics

Definition Collection of Data, Processing, Analysis and interpretation of Data, Classification of Data – Frequency distribution. Graphical presentation using histogram and cumulative frequency curves.

UNIT 2:   **26 HRS**

Analysis of univariate data

Measures of Central tendency: -Characteristics of a good measure of central Tendency, Arithmetic mean-simple and weighted means, Median and Mode-properties and computation of grouped data. Geometric mean and Harmonic mean.

Measures of Dispersion:- Definition, Measures of definition –Range, Quartile deviation, Mean Deviation and standard deviation their relative measures and co-efficient of variation, Skewness-concept, measures-Karl Pearson's coefficient and Bowley's co-efficient.

UNIT 3:   **10 HRS**

Analysis of bivariate data

Correlation- Definition, Scatter diagram, Karl Pearson's correlation coefficient, Spearman's rank correlation, properties of correlation coefficient and interpretation of correlation coefficient through probable error. Regression-Linear regression, properties of regression coefficients and their interpretation.

UNIT 4:   **10 HRS**

Applied statistics

Index Numbers- Definition, Method of construction, Unweighted and weighted price index numbers-Laspeyre's, Paasche's, Marshall-Edge worth, Drobish - Bowley and Fisher's price index numbers. Cost of living index numbers-steps in construction and computation

UNIT 5:   **9 HRS**

Time series

Definition, components of a time series, methods of measuring, trend-moving average and least squares method(for linear and quadratic equations only).

SKILL DEVELOPMENT:

- Collect the data on the turnover of a company for 10 years and calculate the average
- For the date collected estimate the turnover for the next year using least square method.
- Collect the height and weight of 10 friends and find the correlation.
- Select 6 items of daily consumed products and collect the base year quantity, base year price, current year quantity and current year price and calculate the Price Index Number.
- Collect the II PUC percentage marks of 50 students and prepare frequency distribution and represent the same in histogram.
- List out 5 examples where sample method/ census method applied for the collection of the data.

BOOKS FOR REFERENCE:

1. Basic Statistics – B.L Agarwal – New Age International Publishers-Fourth Edition - 2006
2. Fundamentals of Statistics-S.C Gupta-Himalaya Publishing House-Sixth Edition
3. Business Statistics-Shukla S.M and Sahai S P, SahithyaBhawan Publications-2005
4. Statistical Methods-D. Patri and D.N Patri-Kayam Publishers-Fourth Edition -2005
5. Business Statistics- M.Wilson, Himalaya Publishing House, Third edition-2007
6. Business Statistics- S.L. Aggarwal and S.L Bhardwaj, Kalyani Publisher, Third Revised Edition 2009.
7. Business Statistics- S.P. Gupta and M. P. Gupta- Sultan Chand & Sons- 15th Edition