

Jyoti Nivas College Autonomous
Department of Commerce and Management
Syllabus for II Semester
Logistics & Supply Chain Management
2.4 BUSINESS STATISTICS

Objectives:

1. Learning the various statistical tools and techniques for business analytics.
2. Giving an exposure to the students about the statistical techniques useful in data analysis and research.
3. Learning the techniques available for understanding and analysis of business and economic data.

Outcome:

1. Business statistics provide a sound base on which business decisions could be taken.
2. To enable students to interpret the results of data analysis.
3. Enables students to concise depiction of large chunk of data diagrammatically.

Unit	Content of Subject	Hours
I	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.	5

II	<p>Analysis of Univariate data:</p> <p>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.</p> <p>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.</p>	15
		11
III	<p>Analysis of Bivariate data</p> <p>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.</p>	10
IV	<p>Applied Statistics:</p> <p>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</p>	10
V	<p>Time series: - Definition, components of a time series, methods of measuring, trend-moving average and least squares method(for linear and quadratic equations only).</p>	9

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 REFFERENCE

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, Sahitya Bhawan 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