K L UNIVERSITY

DEPARTMENT OF COMMERCE

B.Com (Honours) (Accounting & Finance)

II - SEMESTER

QUANTITATIVE METHODS

Unit I: Statistical description of data and Measures of Central Tendency and Dispersion (9 Hours)

Textual, Tabular & Diagrammatic representation of data. - Frequency Distribution. - Graphical representation of frequency distribution - Histogram, Frequency Polygon, Ogive - Arithmetic Mean, Median - Partition Values, Mode, Geometric Mean and Harmonic, Mean, Standard deviation, Quartile deviation

Unit II: Elementary Probability Theory(9 Hours)

Concept of Random Experiment / Trial and possible outcomes – Sample space and Discrete sample space – Events and their types – Algebra of Events – Mutually exclusive and Collectively exhaustive events – Concept of "C_r" - Classical definition of Probability – Addition and Multiplication theorems (without proofs) – Independence of events – Simple Examples – Bayes Theorem – Marginal and conditional Probability – Random variable – Probable Distribution of a discrete random variable – Expectations and variance.

Unit III: Probability Distribution(8 Hours)

Concept of Probability Distribution Function – Binomial, Poison, and Normal Distribution and Standard Normal Distribution – Simple Examples – Central limit theorem – Law of large numbers (without proofs).

Unit IV: Sampling (8 Hours)

Preliminary Concept – Population – Sample Parameter – Statistic attribute – Types of samples – Sampling methods – Sampling Distribution – Mean and Standard of the Sampling Distribution– Test for mean – using Normal and students T Distribution.

Unit V: Correlation and Regression and Index Numbers (11 Hours)

Simple and Partial Correlation – Regression analysis – Simple linear Regression model – Estimating the Regression equation – Methods of least squares – Standard error of the Estimates – Interpreting the standard error of the estimate and finding the confidence limits for the estimates correlation and regression - coefficient of determination – Multiple Regression analysis - Index Numbers

Text Book:

1. *S.C.Gupta,* Fundamentals of Statistics, *Himalaya Publishing House, 2010, 17th Edition, Mumbai*
2. *S.C.Gupta & V.K.Kapoor, Fundamentals of Mathematical Statistics, S.Chand, 2006, 5th Edition, New Delhi*

Reference Books:

1. *Bhardwaj,* Business Statistics, *Excel Books,2009, 1st Edition, New Delhi*
2. Anand *Sharma,* Statistics for Management, *Himalaya Publishing House, 2009, 2nd Edition, Mumbai*
3. *J.S.Chandan,* Business Statistics, *Vikas Publishing House, 2007, 2nd Edition, New Delhi*
4. *J.K.Thukral,* Mathematics for Business Studies, *Mayur Publications, 2009, 13th Edition, New Delhi*

5. *Richard Levin David S.Rubin*, Statistics for Management, *Prentice Hall of India, 2008, 7th Edition, New Delhi*
6. Dr.J.K.Thukral, Business Mathematics and Statistics, Mayure Publications, 2009, 2nd Edition, New Delhi