

B.Com. Sem. VI

Quantitative Analysis I – Syllabus

Unit	Title	Details of Topics
Unit 1	Introduction	Introduction to Statistics, Statistics in Business, Charts and Graphs. Descriptive Statistics, Measure of central tendency, measure of variability, for Group and ungrouped data, Measures of shape, measures of association. Permutations and Combinations; Introduction to probability, Structure of probability, Results of probability, Revision of probability: BAYES' RULE, and examples Random variable and probability distribution: Discrete and Continuous distribution, Expected value and variance of a distribution.
Unit 2	Distribution and Sampling	Discrete Distributions: Uniform distribution, Hyper-Geometric distribution, Binomial distribution, Poisson distribution and their relationship, Continuous Distributions: Uniform distribution, Normal distribution, Exponential distribution; Sampling and sampling Distributions
Unit 3	Inferences and Hypothesis Formation	Statistical Inference: Estimation for Single and Two Populations; Hypothesis Testing for Single Populations-Mean, Proportion and Variance; Hypothesis Testing for Two Populations- Mean, Proportion and Variance
Unit 4	Hypothesis Testing and Regression	Analysis of Variance (Only one way), Hypothesis Testing for categorical data(chi square test); Simple Linear Regression Analysis –introduction, Determining the equation of a regression line, measure of variation, using the residual analysis to test the assumptions of Regression, measuring Auto correlation – The Durbin Watson statistic, Testing of the Overall Model
Unit 5	Software Uses	Use of any software (EXCEL, Minitab, SPSS etc.) for exposure to the above concepts. Statistical Modeling using SPSS.

Books Recommended :

1. Ken Black, Business Statistics for Contemporary Decision Making, Wiley, Fourth or later Edition
2. Richard I. Levin and David S. Rubin, Statistics for Management, Pearson Education, 6th Edition or later Edition
3. Anderson, Sweeney, Williams, Statistics for Business and Economics, Ceenage Learning, Latest edition