

B. Com. Semester III

Statistics - Syllabus

| Unit | Title | Details of Topic |
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| Unit I | Introduction to Statistics | Statistics as a Subject of Study, Describing Characteristics by numbers, Information and Data, Processing information and use of statistical procedures, Statistical variables: Qualitative and Quantitative |
| Unit II | Frequency Distribution and Graphs | Frequency, Stem and Leaf Display, Frequency Distributions, Data Grouping: Discrete and Continuous, Introduction to Graphs, Graph for Qualitative variables, Graph for Quantitative variables, Various types of graphs and diagrams: pictographs, bar diagram, scatter diagram, histogram, pie chart, frequency curve and frequency polygon |
| Unit III | Measures of Central Tendency | Mean, Median and Mode, Weighted Average, Geometric Mean, Harmonic Mean, Relative merits of Mean, Median and Mode in a distribution, Mean of two or more means |
| Unit IV | Measures of Dispersion, Skewness and Kurtosis | Measures of Dispersion, Range, Co-efficient of Range, Quartiles, Inter-Quartile Range and Quartile Deviation, Co-efficient of Quartile Deviation, Mean Deviation, Co-efficient of Mean Deviation, Standard Deviation, Co-efficient of Variation, The Lorentz Curve, Skewness and Kurtosis; Measures of Skewness: Absolute and Relative; Co-efficient of Skewness: Karl Pearson's, Bowley's and Kelly's; Moments and Moments based measures of Skewness (β_1) and Kurtosis (β_2) |
| Unit V | Correlation and Regression | Introduction to Correlation, Karl Pearson's product moment Co-efficient of Correlation, Positive, negative and zero correlation, Correlation through Scatter diagrams, Interpretation of Correlation Co-efficient, Simple and Multiple Correlation; Regression and the criterion for the Line of Best Fit, Explained and Unexplained Variation, Multiple Regression |
| Unit VI | Probability and Probability Distributions | Sample space and Events, Simple and Compound Events, Probability and Probability distributions: Normal Distribution, Binomial and Poisson Distribution |

Books Recommended:

1. Roger E. Kirk Statistics: An Introduction, Fifth Edition, Thomson-Wadsworth Publication.
2. Mc Clave, Benson and Sincich, Statistics for Business and Economics, Eleventh Edition, Prentice Hall Publication.

3. Jack Levin, James Alan Fox , Elementary Statistics in Social Research, Pearson Education.
4. S.P. Gupta , Statistical Methods, S. Chand Publication.