

Subject Code: 205

Subject Name: Statistical Methods I

Unit I: Classification and Tabulation

8Hrs.

Introduction – organization of data, classification, Frequency Distribution – raw data, array, discrete or ungrouped frequency distribution, grouped frequency distribution, continuous frequency distribution, types of classes, number of classes, types of class intervals, cumulative frequency distribution – less than and more than cumulative frequency distribution, relative frequency distribution, Tabulation – meaning and importance, parts of table, requisites of good table, types of tabulation

Unit II: Diagrammatic and Graphic Representation

8Hrs

Introduction, difference between diagrams and graphs, diagrammatic presentation

– Technique of construction of graphs, general rules for graphing, histogram, frequency polygon, frequency curve, ogive curve (cumulative frequency curve) – less than and more than ogive curve.

Unit III: Measures of Central Tendency

12Hrs.

Index or subscript notations, summation notation, averages, arithmetic mean weighted arithmetic mean, median, mode, empirical relation between mean, median and mode, their properties, geometric mean, harmonic mean, root mean squares, quartiles, deciles, percentiles

Unit IV: Measures of Dispersion

10Hrs.

Dispersion or variation, range, mean or average deviation, semi inter quartile or quartile range, standard deviation, variance, properties of each, empirical relation between measures of dispersion, absolute and relative dispersion, coefficient of variation.

Unit V: Correlation

10Hrs.

Introduction, methods of studying correlation, scattered diagram method, Karl Pearson's coefficient correlation, rank correlation method.

Unit VI: Linear Regression Analysis:

12Hrs.

Coefficient of regression, to find the mean value from two lines of regression, to find the regression coefficient and correlation coefficient from two lines of regression, standard error of an estimate, correlation analysis vs. regression analysis.

Recommended Books:

1. Statistical Methods by S.P Gupta
2. Statistic For Management by Richard Levin
3. A text book of statistical methods by Dr V.R Prayag