

B.Com. I Year

1304

BUSINESS STATISTICS

Unit – I

Statistics : Meaning, Definition, use in Business, Limitations. Data Collection : Primary and Secondary Data, Classification, Frequency Distribution and Tabulation of Data

Unit – II

Measures of Central Tendency : Meaning, Functions, Requisites of Good Average, Types, Computation and uses of Arithmetic Mean, Geometric Mean, Harmonic Mean, Median and Mode, Weighted Mean, Partition Values.

Dispersion: Meaning, objectives, Absolute and Relative Measures. Range and its Types, Quartile Deviation, Mean Deviation, Standard Deviation, Coefficient of Variation Lorenz curve.

Skewness : Meaning, Types, Karl Pearson's and Bowley's measures.

Unit – III

Correlation Analysis : Meaning, Uses, Types, Karl Pearson's Coefficient, Coefficient of Determination and Non-determination, Probable Error, Rank Correlation, Concurrent Diviation Methods, Lag and Lead in Correction. Regression Analysis : Meaning, Uses, Types, Least Squares Principles, Methods, Standard Error of Estimate. Association of Attributes : Two attribute situations.

Unit – IV

Index Number: Meaning, Types and Uses, Methods of constructing price and quantity indices (simple and aggregate): Tests of adequacy, Chain-base index numbers; Base shifting, Splicing, and deflating, Problems in constructing index numbers, Consumer price index.

Analysis of Time Series : Causes of variations in time series data, Components of a time series, Decomposition – Additive and Multiplicative models, Determination of trend – Moving averages method and method of least squares (including linear, second degree, parabolic and exponential trend); Computation of seasonal indices by simple averages, ratio- totrend, ratio to moving average, and link relative methods.

Unit – V

Theory of Probability : Probability as a concept, the three approaches to defining probability, Addition and multiplication laws of probability, : Probability distribution : Probability distribution as a concept, Binomial, Poisson and Normal distributions – their properties and parameters, Empirical distribution – generating, Applications to business.

Suggested Readings:

1. Gupta, B.N. : Statistics (Hindi).
2. Gupta, S.P.: Statistical Methods, Sultan Chand & Sons, New Delhi
3. Hoel & Jessen : Basic Statistics for Business and Economics : John Wiley and Sons, New York.
4. Hooda, R.P.: Statistics for Business and Economics; Macmillan, New Delhi.
5. Lewin and Rubin : Statistics for Management, Prentice Hall of India, New Delhi.
6. Nagar, Kailsh Nath, Sankhyika ke Mool Tattar
7. Rao, N.S., Suthar, S.P. and Gupta, S.L. : Business Statistics (Hindi) Alka Publishing House, Udaipur.