

LIS14108 EA BASICQUANTITATIVE TECHNIQUES

(4 Credits)

Credit Pattern

Lecture	Tutorial	Practical	Total
3	1	0	4

Objectives

- To acquaint students with Basic Quantitative techniques for collecting, presenting and analyzing data in a scientific way.
- To make understanding foundations sampling technique and other related concepts

Unit I

- 1.1 Quantitative methods: Definition, Need and significance. Features of Quantitative data. Types of data. Frequency distribution etc.
- 1.2 Collection of data: Various Tools & Techniques (Merits, demerits, significance).
- 1.3 Design & Development of a Different Data Collection Tools.

Unit II

- 2.1 Presentation of data: Tabular, Diagrammatic and Graphic methods
- 2.2 Significance in Library and information Science
- 2.2 Sampling: concept, types and techniques.

Unit III

- 3.1 Basic operation Research Techniques
- 3.2 Measures of Central tendency: Estimation of Mean, Mode, Median and Geometric Mean
- 3.3 Measures of Dispersion. Estimation of Quartile Deviation, Mean Deviation, Standard Deviation , Skewness , Kurtosis and Regression

Unit IV

- 4.1 Time series analysis: concept and Estimation

- 4.2 Correlation analysis: concept and Estimation
- 4.3 Optimization techniques. Allied to information access and use

Suggested Readings:

- Arora, P.N., &Arora, S. (2000). *C A Foundation course statistics*. (4thRev.ed.)New Delhi: S.Chand.
- Busha, C.H., &Harter, S. H. (1988).*Research Methods in librarianship: techniques and interpretation*. New York: Academic Press.
- Croxton, F. E. (1969). *Applied general statistics*. (3rded). New Delhi: Prentice Hall.
- Denzin, N. K., & Lincoln, Y. S. (1994).*Handbook of qualitative research*. Thousand Oaks: Sage Publications.
- Elhance, D.N. (2005). *Fundamentals of statistics*.Allhabad: KitabMahal.Publishers.
- Goswami, P. R. (1996). *Statistical information system and libraries*. New Delhi: Anmol Pub.
- Gupta, S.C., &Kapoor, V.K. (2001).*Fundamentals of mathematical statistics*. NewDelhi: Sultan Chand.
- James, T. Mc. C. (2005). *First course in statistics*. (9thed.). New Delhi: Prentice Hall.
- Khanna, J.K. (1997). *Library Compendium*.New Delhi: Beacon Books.
- Simpson, I.S. (1988). *Basic statistics for librarians*.(3rd Rev ed.). U.K: Library Association.
- Goswami, P. Rajan () *Statistical Information System &Libraries*.NewDelhi: Anmol Publication)
- Gupta, C.B () *An Introduction to Statistical Methods*. New Delhi: Vikas Publication
- Elhance, D.N () *Fundamentals of Statistics*. New Delhi: KitabMahal
- Aggarwal, Y.P () *Statistical Methods: Concepts, Applications & Computations*. New Delhi, Sterling Publication
- Gupta, S.C &Kapoor, V.K () *Fundamentals of Mathematical Statistics*. New Delhi: Sultan Cloud Publication
- Gupta, S.P () *Statistical Methods*. New Delhi: Cloud Publication)