BA II Year	BEC-S401: Data Analysis		Semester 4
Marks Allotted for Internal Assessment	Marks Allotted for End Semester Examination (ESE)	Maximum Marks	Total Credits
30	70	100	4

Learning Outcomes: Student will be able to

- Demonstrate the role of quantitative techniques in the field of business/industry.
- Classify data on the basis of its source and nature.
- Apply concepts that identify relationships between two or more variables.
- Interpret the meaning of various population parameters
- Understand the nature and purpose of index numbers

Unit 1	**SOURCES OF DATA:** Population census versus sample surveys. Sampling methods.
Unit 2	**UNIVARIATE FREQUENCY DISTRIBUTIONS:** Measures of central tendency: Mean median and mode; arithmetic, geometric and harmonic mean. Measures of dispersion, skewness and kurtosis.
Unit 3	**BIVARIATE FREQUENCY DISTRIBUTIONS:** Correlation and regression. Rank correlation.
Unit 4	**ESTIMATION OF POPULATION PARAMETERS FROM SAMPLE DATA:** Unbiased estimators for population mean and variance.
Unit 5	**BASICS OF INDEX NUMBERS:** Introduction to index numbers, price and quantity index numbers.

Suggested Readings:

- P.H. Karmel and M. Polasek (1978), Applied Statistics for Economists, 4th edition, Pitman.
- M.R. Spiegel (2003), Theory and Problems of Probability and Statistics (Schaum Series).