

Teaching Lesson Plan

Semester-II

MJ 3: Business Statistics

Lecture hours: 60

OBJECTIVES: To develop amongst the learners the ability to summarise, analyse and interpret quantitative information for business decision making.

SN	Subject and Objectives	Lectures Hrs	Methodology	Evaluation Mode
Unit-I	Univariate Analysis	10Hrs		
	Measures of Central Tendency- Arithmetic mean, Geometric mean, Harmonic mean, Properties, and applications. Median and other Partition values (quartiles, deciles, percentiles), Mode.	5	PPT, Illustrations	Q & A, Assignments
	Measures of Dispersion: absolute and relative- Range, Quartile deviation, Mean deviation, Standard deviation, and their coefficients; Properties of Standard deviation/Variance.	5	PPT, Illustrations	Q & A, Assignments
Unit-II	Bi-variate Analysis	10Hrs		
	Simple and Linear Correlation analysis: Meaning, Measurement (Karl Pearson's coefficient and Spearman's Rank correlation) and Properties.	5	PPT, Illustrations	Q & A, Assignments
	Simple and Linear Regression Analysis: Regression equations and estimation; properties of Regression coefficients; Relationship between correlation and regression.	5	PPT, Illustrations	CIA
Unit-III	Index Numbers	10Hrs		
	Meaning and uses; Construction of index numbers: Aggregative and average of relatives –simple and weighted; Tests of adequacy of index numbers; Computation and uses of Consumer Price Index (CPI), BSE SENSEX, and NSE, NIFTY.	10	PPT, Illustrations	Q & A, Assignments
Unit-IV	Time Series	10Hrs		
	Components; additive and multiplicative models; Trend analysis - moving averages and method of least squares (linear trend).	10	PPT, Illustrations	Q & A, Assignments
Unit-IV	Probability	10Hrs		
	Theory of probability, Approaches to the calculation of probability.	3	PPT, Illustrations	Q & A, Assignments
	Calculation of event probabilities, Addition, and multiplication laws of probability (proof not required).	4	PPT, Illustrations	Q & A, Assignments
	Conditional probability and Bayes theorem (proof not required)	3	PPT, Illustrations	Q & A, Assignments

Reference Books:

- R. R. Sharma, Mrityunjay Kumar, Business Statistics, Agra (U.P.), Shiksha Sagar Publisher and Distributors.
- Bhardwaj, R. S. (2019). Business Mathematics and Statistics. New Delhi: Scholar Tech Press.
- Richard, I. L., Masood, H. S., David, S. R., & Rastogi, S. (2017). Statistics for Management. New Jersey: Pearson Education.
- Thukral, J. K. (2017). Business Mathematics and Statistics. New Delhi: Maximax Publications.
- Vohra, N. D. (2014). Business Mathematics and Statistics. New Delhi: Tata McGraw Hill Education India.

Prepared by: Dr. Fr. Roshan Baa, SJ