Course Code : MB601

BUSINESS MATHEMATICS

Objective: The objective of this course is to provide the student with an understanding of some of the basic elements of business mathematics and their common application.

UNIT-I **- 11 Hrs**

Linear algebra – Linear Equation – Identity – Equality – General Solution – Simultaneous Homogeneous and Non-homogeneous Linear equations.

UNIT-II **- 11 Hrs**

Probability Theory – Meaning of probability; Different definitions of probability; Addition theorem, multiplication theorem and Bayes' Theorem (proofs are excluded)

UNIT-III **- 12 Hrs**

Discrete and continuous probability distributions – Binomial distribution, Poisson distribution and Normal distributions applications and importance

UNIT-IV **- 13 Hrs**

Index Numbers:- Means and types of index numbers ; Problems in construction of index numbers; Methods of construction of price and quantity indices; Tests of adequacy - Chain-base index numbers; Base shifting, splicing, deflating; Consumer price index and its uses.

UNIT-V **- 13 Hrs**

Time Series Analysis: Introduction - Components of time series; Additive and multiplicative models; Determination of trend by semi average, moving average and least squares (linear, second degree, exponential curves); Computation of seasonal indices by simple average, ratio-to-moving average, ratio-to trend and link relative methods.

Text Books:

1. S.C.Gupta, Fundamentals of Statistics, Himalaya Publishing House, 6th ed., 2011.
2. S.P.Gupta, Statistical Methods, Sultan Chand and Sons, 2009.

Reference Books:

1. V. K. Kapoor Essentials of Mathematics for Commerce and Economics, Sultan Chand & Sons.
2. P.K.Giri and J.Bannerjee, Introduction to Business Mathematics, Academic Pulishers, 1st ed., 2009.
3. Gupta S.C and Kapoor, V.K (2007) : Fundamentals of Mathematical Statistics, 11th ed., Sultan Chand and Sons.
4. Mukhapadhya, P (1999) Applied Statistics, Books and Allied (p) Ltd.,