Syllabus of Statistics

Descriptive Statistics (Bivariate) and Probability Distributions

Credits: 04	Course Code: B060201T	Sem. II
	External Max. Marks 75	Internal Max. Marks.25

Part –A : Descriptive Statistics (Bivariate)

Unit	Topic	No. of Lectures
I	Bivariate data, Principles of least squares, Most plausible values Meaning of curve fitting, Fitting of straight line, parabola, logarithmic, power curves and other simple forms by method of least squares.	08
II	Bi-variate frequency table, Correlation, Types of relationships, Scatter diagram, Karl- Pearson's Correlation Coefficient and its properties.	08
III	Spearman rank correlation and its coefficient Regression analysis through both types of regression equations for X and Y variables.	08
IV	Attributes: Notion and Terminology, Contingency table, Class frequencies and Ultimate frequencies Consistence, Association of Attributes, Independence, Measures of association for 2x2 table, Chi-square and Karl Pearson's Coefficient of Association.	06

Part- B: Probability of Distributions		
V	Discrete Probability Distributions Binomial distribution, Poisson distribution (as limiting case of Binomial distribution) and their properties in detail. Introduction to Geometric, Negative Binomial, Hypergeometric, and Uniform distributions.	10
VI	Continuous Probability Distributions: Exponential, Gamma, Beta and Cauchy distributions with their basic properties.	06
VII	Normal distribution and its properties, Standard Normal variate, Normal distribution as limiting, case of Binomial distribution.	08
VIII	Fitting of Binomial and Poisson distributions. Introduction to Order Statistics, Distributions of minimum and maximum order statistics.	06