B. Com. II: Semester III
Theory of Industrial Statistics Paper I
Elective Component
Computer Code: 375147
Marks: 100

Objectives:
1.To make the students to get acquainted with the basic statistical analytical skills
2. To make students to get acquainted about Statistical tools and techniques to be used for
managerial decisions.

Unit	Contents	Weightage	No of Hours
1	**Theory of Probability:** Approaches to the calculation of probability; Calculation of event probabilities. Addition and multiplication laws of probability (Proof not required); Conditional probability and Bayes' Theorem (Proof not required); Expectation and variance of a random variable	25	15
2	**Probability Distributions:** i. Binomial distribution: Probability distribution function, Constants, Shape, Fitting of binomial distribution ii. Poisson distribution: Probability function, (including Poisson approximation to binomial distribution), Constants, Fitting of Poisson distribution iii. Normal distribution: Probability distribution function, Properties of normal curve, Calculation of probabilities	50	30
3	**Elementary Decision Theory** 1.1 Expectation 1.2 Decision Tree Approach 1.3 Criteria for Optimum Management Decision	25	15

Internal Assessment : 25 marks
Semester Exam : 75 marks

Suggested Readings:

1. Gupta, S.P., and Archana Gupta, Statistical Methods, Sultan Chand and Sons, New Delhi.
2. Gupta, S.C. Fundamentals of Statistics. Himalaya Publishing House.
3. Anderson Sweeney and William, Statistics for Students of Economics and Business, Cengage Learning.
4. Thukral J. K., Business Statistics.

5. Levin, Richard, David S. Rubin, Rastogi, and Siddiqui. Statistics for Management. 7th Edition. Pearson Education.
6. Berenson and Levine. Basic Business Statistics: Concepts and Applications. Pearson Education.
7. Siegel Andrew F. Practical Business Statistics. McGraw Hill.