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| Paper Code(s): BS-252 | L | P | C |
| Paper: Probability, Statistics and Linear Programming Lab | - | 2 | 1 |

Marking Scheme:

1. Teachers Continuous Evaluation: 40 marks
2. Term end Theory Examinations: 60 marks

Instructions:

1. The course objectives and course outcomes are identical to that of (Probability, Statistics and Linear Programming) as this is the practical component of the corresponding theory paper.
2. The practical list shall be notified by the teacher in the first week of the class commencement under intimation to the office of the Head of Department / Institution in which the paper is being offered from the list of practicals below. Atleast 10 experiments must be performed by the students, they may be asked to do more. Atleast 5 experiments must be from the given list.

Implementation to be done in MATLAB or in equivalent software.

1. Installation of Scilab and demonstration of simple programming concepts like matrix multiplication (scalar and vector), loop, conditional statements and plotting.
2. Program for demonstration of theoretical probability limits.
3. Program to plot normal distributions and exponential distributions for various parametric values.
4. Fitting of binomial distributions for given n and p.
5. Fitting of binomial distributions after computing mean and variance.
6. Fitting of Poisson distributions for given value of lambda.
7. Fitting of Poisson distributions after computing mean.
8. Fitting of normal distribution when parameters are given.
9. Fitting of linear regression line through given data set and testing of goodness of fit using mean error.
10. Fitting of Multiple Linear Regression (MLR) curve through given data set and testing of goodness of fit using mean error.
11. Solve a LPP of three variable using Simplex Method.
12. Solve a Transportation problem of three variables.
13. Solve an Assignment problem of three variables.