

MMT-008: PROBABILITY AND STATISTICS

(All the programs are to be written in C language.)

Session 1

Program 1

Write a program to find the lower triangular square root of a pd matrix.

Program 2

Write a program to find the marginal distributions

Session 2

Program 1

Write a program to fit the model using the least square estimates.

Program 2

Write a program to find the multiple correlation coefficient and the mean square error.

Session 3

Program 1

Write a program to show that the matrix is orthogonal.

Program 2

Write a program to develop an orthogonal matrix of order such that the elements in the first row are equal.

Session 4

Write a program to find the ML estimation of mean and variance .

Session 5

Write a program to compute Hotelling .

Session 6

Write a program to test the quality of mean vectors when covariance matrices are equal.

Session 7

Write a program to test for covariance matrix to be equal to a given matrix.

Session 8

Write a program to find the classification of a population into one among k populations.

Session 9

Write a program to find the principal components from a covariance matrix and test it for the data

Session 10

Write a program to find the principal components from a correlation matrix and test it for the data

Session 11

Write a program to write the factor model of a covariance matrix.