

GE 1

Practical

List of Practical

1. Preparation of Histogram and ogive from a set of given data.
2. Measure of central tendency, dispersion, moments.
3. Calculation of correlation coefficient from bivariate data.
4. Calculation of rank correlation coefficient from qualitative data.

GE2

Probability Theory and Distributions:

Unit 1:

Probability :

Random experiment and random events statistical regularity and meaning of probability. Classical and empirical definition of probability. Axiomatic definition. Conditional probability. Independence of events. Principal theorem on the union and intersection of events and Bayes theorem.

Unit 2:

Random variable and its probability distribution. Probability mass function and probability density functions. Mathematical expectations and variance. Joint distribution of two random variables with simple examples. Marginal and conditional distributions.

Unit 3:

Chebyshev's inequality, weak law of large numbers.

Unit 4:

Standard probability distribution:

Uniform, Binomial, Poisson, Gamma, Beta & Normal distribution with their properties and uses.

GE 2

Practical

1. Fitting of binomial distribution for n and $p=q=1/2$ given.
2. Fitting of binomial distribution for n and p given.
3. Fitting of Poisson distribution for given value of λ .
4. Application problems based on binomial and Poisson distribution.
5. Fitting of normal distribution when parameters are given.
6. Fitting of normal distribution when parameters are given.