UNIT-I & II

1) Define Event, Sample space, types & Rules of Counting
2) Baye's Theorem and problems, Conditional Probability
3) Discrete Probability Distribution, bivariate distribution
4) Define Random Variable, types of R.V.
5) Variance, Covariance, Chebyshov's Inequality
6) Binomial and Poisson Distn. Problems & definitions
7) Poisson distn as limiting Case of Binomial.
8) Mean and variance derivations.
9) Addition & multiplication theorem proofs.

UNIT-III & IV

1) Uniform/Rectangular Distribution Mean & variance proof
2) Normal distribution properties/Characteristics and area under the normal curve problem.
3) Normal distribution Curve, Standard normal variate
4) Normal approximation to Binomial.
5) Sampling distribution, Standard Error, Characteristic
6) `t`-distribution properties & applications
7) Define Estimation, Estimator & characteristics of a Good Estimator.
8) Hypothesis definition, procedure for testing a statistical Hypothesis
9) problems on single Mean, Diff. of Means and paired `t`-test. and `F`-test for variances
10) problems on single & two proportions, Means in large Samples

UNIT-V:
1) Markov chain, steady state condition.
2) Transition Probability, stochastic process, Markov Process matrix. Ist IInd, n order.