SUBJECT NO-MA20106, SUBJECT NAME- PROBABILITY

LTP- 3-0-0,CRD- 3

SYLLABUS :-

Prerequisite: voidProbability: Classical, relative frequency and axiomatic definitions of probability, addition rule and conditional probability, multiplication rule, total probability, Bayes Theorem and independence.Random Variables: Discrete, continuous and mixed random variables, probability mass, probability density and cumulative distribution functions, mathematical expectation, moments, moment generating function, Chebyshev s inequality. Special Distributions: Discrete uniform, Binomial, Geometric, Poisson, Exponential, Gamma, Normal distributions. Functions of a Random Variable. Joint Distributions: Joint, marginal and conditional distributions, product moments, correlation, independence of random variables, bivariate normal distribution.Stochastic Processes: Definition and classification of stochastic processes, Poisson process, birth and death process, applications to queues, discrete time Markov chains.