I	Course Code	**MA 225001**
II	Course Title	**Discrete Mathematics**
III	Credit Structure	L T P C 3 0 0 3
IV	Prerequisite (If any)	NIL
V	Course Content	Sets, Relations, Functions, Logic, Propositional Logic and equivalences, Predicts and quantifiers. Proofs, Mathematical induction. Permutations and combinations, binomial coefficients, Estimate, Counting and Probability, expectation and Variance. Graph Theory, Connectivity, Euler and Hamiltonian paths, shortest path. Algorithms, Growth of functions, complexity of algorithms, recurrence, Divide-and conquer algorithms and recurrence relations.
VI	Text/References	• Discrete Mathematics and Its applications, Kenneth Rosen, • Introduction to Algorithms, T. H. Cormen, C. E. Leiserson, R. L. Rivest, C. Stein.