MCA 1.1.1 DISCRETE MATHEMATICAL STRUCTURES

Instruction: 3 Periods / week  Sessional Marks: 30
Univ-Exam : 3 Hours  Univ-Exam-Marks:70

Introduction: Logic-Prepositional Equivalences-Truth tables-Totalies-Predicates and Quantifiers-Sets-Operations on sets-Sequences and Summations -Growth functions - relations and their properties- n-ary relations and their applications -Representation of relations-Closures of relations-Equivalence relations-Partial Orderings.


Boolean Algebra and Models of Computation: Boolean Functions-Representing Boolean Functions -Logic Gates-Minimizations of Circuits-Languages and Grammars- Finite State Machines with and with no output-Language Recognition-Turing Machines.

Text Book:

Discrete mathematics and its applications, Keneth. H. Rosen, Tata McGraw-Hill Publishing Company, New Delhi ( Chapters: 1, 4.1, 4.2, 4.3, 4.6, 4.7, 5, 6, 7, 8, 9, 10 )

Reference Books:


2) Discrete mathematics, Richard Johnsonbaugh, Pearson Education, New Delhi