

Mathematics

DSE - 2 (Discipline Specific Elective - 2): Theory - “Discrete Mathematical Structure”

Block - I : Logic

Unit - 1 : Statements , Truth Tables , Connectives and Implications

Unit - 2 : Equivalence and Normal Forms

Unit - 3 : Inference for Statement Calculus

Block - II : Counting Principles

Unit - 4 : Permutations and Combinations

Unit - 5 : Generating Functions

Unit - 6 : Recurrence Relations

Block - III : Graphs

Unit - 7 : Graphs : Definition , Types of Graphs

Unit - 8 : Planner Graphs

Unit - 9 : Trees

Block - IV : Net Works

Unit - 10 : Spanning Trees
(Minimal Spanning Trees)

Unit - 11 : Traversability

Unit - 12 : Maximal Flows and Minimal Flows

Discipline Specific Elective - 2: Practical - “Discrete Mathematical Structure”

Block - I : Logic and Counting Principles

Unit - 1 : Statements , Truth Tables , Connectives and Implications

Unit - 2 : Equivalence , Normal Forms and Inferences

Unit - 3 : Permutations and Combinations

Unit - 4 : Generating Functions and Recurrence Relations

Block - II : Graphs and Net Works

Unit - 5 : Graphs and Planner Graphs

Unit - 6 : Trees and Spanning Trees
(Minimal Spanning Trees)

Unit - 7 : Traversability

Unit - 8 : Maximal Flows and Minimal Flows