DISCRETE MATHEMATICS – I:

UNIT- I:

Propositional Calculus:

Connectives, Negation, conjunction, Disjunction, statement formulas and truth tables, conditional and Bi-conditional, well formed formulas, Tautologies, Equivalence of formulas, duality law, Tautologies implications, Functionally complete set of, other connectives.

UNIT- II:

Disjunctive normal forms, connective normal forms, Principal disjunctive normal form, Principal conjunctive normal form.

UNIT- III:

Predicate Calculus:

The theory of Inference for statement Calculus, validity using truth tables, Rules of inference, consistency of premises and indirect method of Proof.

UNIT- IV:

The statement function, variables and quantifier, Predicate formulas, Free and Bound variables, The universe of Discourse, Theory of inference for predicate calculus.