

**SYMBOLIC LOGIC**

Unit 1:

Introduction – Use of Symbols – Truth and Validity – Modern Classification of Propositions – Branches of Symbolic Logic.

Unit 2:

Variables and Constants – Connectives and Modifier – Basic Truth Tables – Indirect Truth Table Method – Case Analysis – Tautology, Contradiction and Contingency

Unit 3:

Conjunctive Normal Form – Natural Deduction – Conditional Proof – Reductio ad absurdum Method – Truth Tree Technique

Unit 4:

Predicate Logic – Symbolic Language of Predicate Calculus – Symbolization of Categorical Propositions – Natural Deduction – The Use of U.I., U.G., E.I and E.G. – Singularly General Propositions – Square of Opposition – Eduction

Unit 5:

Use of Boolean Expressions in testing the Syllogisms – Use of Venn Diagram – Axiomatic Method.

**BOOKS FOR REFERENCE:**

1. Balasubramanian, P., Symbolic Logic and its Decision Procedures, University of Madras, 1980.
2. -----, An Invitation to Symbolic Logic, Rajan & Co., Madras, 1977.
3. Basson and O'Connor, An Introduction to Symbolic Logic, Oxford University Press, Calcutta, 1976.
4. Blumberg, Albert E., Logic A First Course, Alfred A Knopf, New York, 1976.
5. Copi, Irving M., Symbolic Logic, Prentice-Hall of India, Pvt. Ltd., New Delhi, 1999.
6. Jeffrey Richard, Formal Logic Its Scope and Limits.
7. Kahane, H., Logic and Philosophy, Wadsworth, California, 1973.
8. Kilgore William, J., An Introductory Logic.
9. Samuel D Gutten Plan & Martin Tamney, Logic A Comprehensive Introduction, Inc Publication, New York, 1971.
10. Thomas Norman, L., Modern Logic,