

3RD Semester

PHI-200- LOGIC

Credits: 4

Objectives: To equip students with the fundamental principles and techniques of reasoning and argumentation.

LOGIC

Unit – I Basic Concepts

- (a) What is Logic?
- (b) Sentences, Judgements, Statements and Propositions
- (c) Arguments
- (d) Truth, Validity and Soundness

Unit – II Definition

- (a) Kinds of Definition
- (b) Concept of Denotation and Connotation
- (c) Denotative, Connotative and Ostensive Definitions
- (d) Rules for Definition by Genus and Difference

Unit – III Deduction

- (a) Classification of Propositions and Square of Opposition
- (b) Categorical Syllogism and its fallacies
- (c) Laws of Thought

Unit – IV Symbolic Logic

- (a) Logical Constants and Variables
- (b) Truth Functions: Negation, Conjunction, Disjunction, Implication, Equivalence
- (c) Tautology, Contradictory and Contingent
- (d) Techniques of Symbolization and Construction of Truth Tables

Learning outcome: Students will develop the ability to argue and reason and to analyse arguments critically and identify fallacies.

Suggested Readings:

1. Irving M. Copi and Carl Cohen, Introduction to Logic (Tenth Edition), Pearson Education Pvt. Ltd., Delhi 2001.
2. L. S. Stebbing, A Modern Introduction to Logic, London, Methuen, (Sixth Edition) 1984.

3. M. R. Cohen and E Nagel, Introduction to Logic and Scientific Method. Allied Publishers Pvt. Limited, New Delhi, Second Edition, 1972.
4. O' Conner, D. J. and Basson, A. H., Symbolic Logic, Oxford University press, fourth Edition, 1981.
5. M. R. Cohen and E. Nagel, Introduction of Logic, Routledge & Kegan Paul Ltd., London , 1966.
6. Chhanda Chakraborty, Logic: Informal Symbolic and Inductive (2nd edition) Printice-Hall of India Private Limited, New Delhi, 2009.