

FIRST ALLIED COURSE I - ESSENTIAL COMPUTER MATHEMATICS

UNIT-I

Binary number systems – Computer codes – Computer arithmetic – Logic & truth tables.

UNIT-II

Algorithms - flow charts – Pseudo code - Sets & relations.

UNIT-III

Boolean algebra, Logic gates- Simplification of logic circuits.

UNIT-IV

Vectors, matrices, subscripted variables – Linear equations – Combinatorial analysis.

UNIT-V

Graph Theory Basic concepts – Finite and infinite Graphs – Incidence and degree ideas on vertices – Isomorphism sub graphs, walks – paths and circuits.

Text book:

1. **Lipschutz, Seymour**, Essential Computer Mathematics, Tata-McGrawHill Company limited, (ISBN 0-07-058912-7) 2004. (For first 4 units)
[**Unit-1** (Chapters - 1, 2, 3, 4) ; **Unit-2** (Chapters – 5, 6) ; **Unit-3** (Chapters – 7, 8) ; **Unit-4** (Chapters – 9,10, 11)]
2. **Nasingh Deo**, Graph Theory, Prentice Hall of India – (P) Ltd. New Delhi 1997. (for Unit 5)