

## 2.10 30324 DATA STRUCTURES

### UNIT-1 BASIC ELEMENTS OF “C” and CONTROL STATEMENTS

- 1.1 Keywords, Constants, Variables and Data types
- 1.2 Operators and Expressions
- 1.3 Control Statements
- 1.4 Programs using Operators and Control structures
- 1.5 Cement

### UNIT-2 ARRAYS, STRINGS, and FUNCTIONS

- 2.1 Arrays
- 2.2 Strings
- 2.3 Functions
- 2.4 Programs using arrays, functions

### UNIT-3 STRUCTURES AND UNIONS and POINTERS

- 3.1 Structures and Unions
- 3.2 Pointers
- 3.3 Relation of pointers with other elements
- 3.4 Dynamic memory allocation
- 3.5 Programs using Structures, Unions and Pointers

### UNIT-4 LINEAR DATA STRUCTURES

- 4.1 Elementary data organization
- 4.2 Linked Lists
- 4.3 Stacks
- 4.4 Queues

### UNIT-5 NON LINEAR DATA STRUCTURES

- 5.1 Trees
- 5.2 Graphs
- 5.3 Searching
- 5.4 Sorting

#### Reference Books:

1. Programming in ANSI C by E. Balagurusamy TMGH, New Delhi
2. Programming with C by Byron Gottfried. Schaum Series -TMGH
3. Let us C by Yashavent Kanethar BPB Publication, 2005, New Delhi
4. Programming in C by Schaum Series, McGraw Hills Publishers
5. Data Structures by Lipschutz Schaum Series