

Sl. No.	Date Planned	Topic Name	Reference Book Page No.	No. of Periods	Cumulative No. of Periods	Teaching Aids (LCD/OHP/BB)
<b>UNIT I BASICS OF C PROGRAMMING</b>						
1		Introduction to programming paradigms - Structure of C program	T1(1-15)	1	1	
2		C programming: Data Types	T1(19-24)	1	2	
3		Storage classes - Constants	T1(117-120)	1	3	
4		Enumeration Constants - Keywords		1	4	
5		Operators: Precedence and Associativity	T1(32-45)	1	5	
6		Expressions - Input/Output statements, Assignment statements	T1(24-31)	1	6	
7		Decision making statements - Switch statement	T1(57-68)	1	7	
8		Looping statements	T1(69-89)	1	8	
9		Pre-processor directives - Compilation process	T1(325-336) T1(16-18)	1	9	
<b>UNIT II ARRAYS AND STRINGS</b>						
10		Introduction to Arrays: Declaration, Initialization	T1(134-153)	1	10	
11		One dimensional array		1	11	
12		Example Program:Computing Mean, Median and Mode		1	12	
13		Two dimensional arrays	T1(156-163)	1	13	
14		Example Program: Matrix Operations (Addition, Scaling, Determinant and Transpose)		2	15	
15		String operations: length, compare, concatenate, copy	T1(186-196)	1	16	
16		Selection sort		1	17	
17		linear and binary search		1	18	
<b>UNIT III FUNCTIONS AND POINTERS</b>						
18		Introduction to functions: Function prototype, function definition, function call	T1(101-110)	2	20	
19		Recursion – Example Program: Computation of Sine series	T1(120-126)	1	21	
20		Scientific calculator using built-in functions		1	22	
21		Binary Search using recursive functions		1	23	
22		Pointers – Pointer operators – Pointer arithmetic	T1(214-221)	1	24	
23		Arrays and pointers – Array of pointers	T1(223-227) T1(232-234)	1	25	
24		Example Program:Sorting of names – Parameter passing:Pass by value,Pass by reference	T1(111-114)	1	26	
25		Example Program: Swapping of two numbers and changing the value of a variable using pass by reference	Wef Ref	1	27	

UNIT IV STRUCTURES						
26		Structure	T1(259-264)	1	28	
27		Nested structures	T1(265-266)	1	29	
28		Pointer and Structures	T1(268-275)	1	30	
29		Array of structures	T1(266-268)	1	31	
30		Example Program using structures and pointers	Wef Ref.	1	32	
31		Self referential structures	T1(276)	1	33	
32		Dynamic memory allocation	T1(240-244)	1	34	
33		Singly linked list - typedef	T1(348,281)	2	36	
UNIT V FILE PROCESSING						
34		Files	T1(290-294)	1	37	
35		Types of file processing: Sequential access, Random access – Sequential access file	T1(294-300) T1(316-320)	3	40	
36		Example Program: Finding average of numbers stored in sequential access file - Random access file	Web Ref.	2	42	
37		Example Program: Transaction processing using random access files	Wef Ref.	2	44	
38		Command line arguments	T1(302-316)	1	45	

**TEXT BOOKS:**

1. Reema Thareja, —Programming in C++, Oxford University Press, Second Edition, 2016.
2. Kernighan, B.W and Ritchie,D.M, —The C Programming language, Second Edition, Pearson Education, 2006

**REFERENCES:**

1. Paul Deitel and Harvey Deitel, —C How to Program, Seventh edition, Pearson Publication
2. Juneja, B. L and Anita Seth, —Programming in C++, CENGAGE Learning India pvt. Ltd., 2011
3. Pradip Dey, Manas Ghosh, —Fundamentals of Computing and Programming in C++, First Edition, Oxford University Press, 2009.
4. Anita Goel and Ajay Mittal, —Computer Fundamentals and Programming in C++, Dorling Kindersley (India) Pvt. Ltd., Pearson Education in South Asia, 2011.
5. Byron S. Gottfried, "Schaum's Outline of Theory and Problems of Programming with C", McGraw-Hill Education, 1996