

MCA I Year I Semester Subject Code: 24MCA1007 Data Structures using C Lab

Contact Hours	Exp No.	Topics	Methodology	Remarks
1–3	Exp 1	a. Even numbers & sum b. Armstrong numberc. Factorial	Practical (C Coding)	
4–6	Exp 2	a. Matrix Addition b. Matrix Multiplication	Practical (C Coding)	
7–9	Exp 3	a. Prime check using function b. Recursive Fibonacci	Practical (C Coding)	
10–12	Exp 4	a. Factorial (recursive & non-recursive) b. GCD (recursive & non-recursive)	Practical (C Coding)	
13–15	Exp 5	a. Linear Searchb. Binary Search (both rec & non-rec)	Practical (C Coding)	
16–21	Exp 6	a. Stack using array b. Stack using linked list	Practical (C Coding)	
22–27	Exp 7	a. Queue using array b. Queue using linked list	Practical (C Coding)	
28–33	Exp 8	a. Singly linked list – creation and operations	Practical (C Coding)	
34–36	Exp 9	a. Binary Tree – Recursive Traversals (pre, in, post order)	Practical (C Coding)	
37–39	Exp 10	a. Binary Tree – Non-recursive Traversals (pre, in, post order)	Practical (C Coding)	
40–45	Exp 11	a. BST – Insertion and Deletion	Practical (C Coding)	
46–48	Exp 12	a. Bubble Sort b. Quick Sort	Practical (C Coding)	