

ADITYA INSTITUTE OF TECHNOLOGY & MANAGEMENT, TEKKALI
DEPARTMENT OF CSE

Lesson Plan

Class: II-I CSE-B

Subject: DS LAB

AY:2012-13

S.NO	DATE (Batch-I)	DATE (Batch-II)	EXPERIMENT
1	2/7/2012	4/7/2012	Exercise 1: Write recursive programme which computes the nth Fibonacci number, for appropriate values of n. Analyze behavior of the programme Obtain the frequency count of the statement for various values of n.
2	9/7/2012	11/7/2012	Exercise 2: Write recursive programme for the following a) Write recursive C programme for calculation of Factorial of an integer b) Write recursive C programme for calculation of GCD (n, m) c) Write recursive C programme for Towers of Hanoi : N disks are to be transferred from peg S to peg D with Peg I as the intermediate peg.
3	16/7/12	18/7/12	Exercise 3: a) Write C programs that use both recursive and non recursive functions to perform Linear search for a Key value in a given list. b) Write C programs that use both recursive and non recursive functions to perform Binary search for a Key value in a given list. c) Write C programs that use both recursive and non recursive functions to perform Fibonacci search for a Key value in a given list.
4	23/7/12	25/7/12	Exercise 4: a) Write C programs that implement Bubble sort, to sort a given list of integers in ascending order b) Write C programs that implement Quick sort, to sort a given list of integers in ascending order c) Write C programs that implement Insertion sort, to sort a given list of integers in ascending order
5	30/7/12	7/8/2012	Exercise 5: a) Write C programs that implement heap sort, to sort a given list of integers in ascending order b) Write C programs that implement radix sort, to sort a given list of integers in ascending order c) Write C programs that implement merge sort, to sort a given list of integers in ascending order
6	6/8/2012	14/8/12	Exercise 6: a) Write C programs that implement stack (its operations) using arrays b) Write C programs that implement stack (its operations) using Linked list
7	13/8/12	21/8/12	Exercise 7: a) Write a C program that uses Stack operations to Convert infix expression into postfix expression a) Write C programs that implement Queue (its operations) using arrays. b) Write C programs that implement Queue (its operations) using linked lists
8	3/9/2012	4/9/2012	Exercise 8: a) Write a C program that uses functions to create a singly linked list b) Write a C program that uses functions to perform insertion operation on a singly linked list c) Write a C program that uses functions to perform deletion operation on a singly linked list

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9	10/9/2012	11/9/2012	Exercise 9: a) Adding two large integers which are represented in linked list fashion. e) Write a C programme to reverse elements of a single linked list. b) Write a C programme to store a polynomial expression in memory using linked list c) Write a C programme to representation the given Sparse matrix using arrays.
10	17/9/12	18/9/12	Exercise10: a) Write a C program to Create a Binary Tree of integers b) Write a recursive C program, for Traversing a binary tree in preorder, inorder and postorder. c) Write a non recursive C program, for Traversing a binary tree in preorder, inorder and postorder. d) Program to check balance property of a tree.
11	24/9/12	25/9/12	Exercise 11: a) Write a C program to Create a BST b) Write a C programme to insert a note into a BST. c) Write a C programme to delete a note from a BST.
12	1/10/2012	2/10/2012	Exercise 12: a) Write a C programme to compute the shortest path of a graph using Dijkstra's algorithm b) Write a C programme to find the minimum spanning tree using Warshall's Algorithm