

Subject : DATA STRUCTURES AND ALGORITHMS USING C
Subject code: IT204
Semester: SECOND
Branch : MS – SOFTWARE ENGINEERING

LIST OF EXPERIMENTS

DATA STRUCTURES

CYCLE SHEET 1

1. Write a C program to find the greatest of n number.
2. Write a C program to find the addition and subtraction of 2 matrices of order 3*3 Using **Three** dimensional array
3. Write a C program to implement the operations on list(array implementation)
 - a. insertion(all three cases)
 - b. deletion(all three cases)
4. Write a C program to find the maximum subsequence sum for the given set of positive and negative integers.
5. Implement the following operations on singly linked list.
 - a. Insertion at given position
 - b. Deletion at given position
 - c. Display.
 - d. Searching.
6. Implement the following operations on Doubly linked list.
 - a. Insertion at given position
 - b. Deletion at given position
 - c. Display.
 - d. Searching.
7. Implementation of Stack Using Arrays
8. Implementation of stack using linked list.

9. Implementation of linear Queues using arrays
10. Implementation of linear queue using linked list.
11. Implementation of circular queue using arrays
12. Write a C program to convert the given in-fix expression into Post-fix form.(you can use both array & linked list)
13. Evaluate the following postfix expression $42\ 3\ *3-84/11\ +/+$ with the help of stack

CYCLE SHEET 2

14. Implementation of bubble sort.
15. Implementation of Insertion sort
16. Implementation of Merge sort
17. Implementation of Quick sort
18. Implementation of Radix sort.
19. Implementation of Selection sort
20. Implementation of Linear search
21. Implementation of Binary search

CYCLE SHEET 3

22. Implementation of depth first traversal.
23. Implementation of Binary Search Tree.

Instructions:

1. Cycle sheet 1(Exno1-Exno13) should be completed on or before 14th Feb 2012.
2. Cycle Sheet 2(Exno14-Exno21) should be completed on or before 20th Mar 2012
3. Cycle Sheet 3(Exno22-Exno23) should be completed on or before 24th Apr 2012.
4. CAT-1 Lab Exam On 28-02-2012
5. CAT-2 Lab Exam on 03-04-2012
6. Term End Lab Exam on 01-05-2012

Internal Mark Split-up Details:

S.NO	COMPONENT	MARKS
1.	CAT-1	15
2.	CAT-2	15
3.	OBSERVATION	20
TOTAL		50