PARUL UNIVERSITY - Faculty of IT & Computer Science
SYLLABUS FOR 3rd Sem BCA PROGRAMME

Data Structures (05101152)

LISTS OF PRACTICAL :

1. Write a C program to perform following operations on strings. (Use library functions for all operations) a) Find length of given string b) Copy string c) Compare given strings d) Concatenate given strings.

2. perform following programs using array. a) Search element in array. b) Sort given array. c) Reverse elements of array. d) Addition of elements of array. e) Find largest element from given array. f) Find smallest element from given array.

3. Write a program to perform the following operations on a stack. Implement the stack using array. a) PUSH b) POP c) PEEP d) CHANGE

4. Write a program to convert an infix arithmetic expression into postfix notation.

5. Write a program to evaluate a postfix expression.

6. Write a program to perform the following operation on a simple queue. (Implement the queue using array).

7. Write a program to perform the following operation on a circular queue. (Implement the queue using array) a) Insert an element b) Remove an element.

8. Write a program perform the following operations on a singly linked list. a) Create Linked list b) Insert element at first position c) Insert element at last position d) Insert element in Linked list in sorted order e) Delete element from Linked list f) Copy Linked list g) Find the sum of elements of linked list e) Count number of nodes of linked list f) Search given element in linked list.

9. Write program to sort a given list using Selection sort.

10. Write program to sort a given list using Bubble sort.

11. Write program to sort a given list using Quick sort.

12. Write program to sort a given list using Insertion sort.

13. Write program to sort a given list using Shell sort.

14. Write program to search an element in a given list using Linear Search.

15. Write program to search an element in a given list using Binary Search.