Paper Code : SWL:206

Paper Name : Software Lab II (Data Structure in C)

1. An array A contains 25 positive integers. Write a program in C which will find out the number of odd and even numbers in that array.
2. Write a program in C for traverses a Linear Array with a lower bound and upper bound.
3. Write a program in C to insert an element in the Kth position of an array size 20.
4. Consider two single dimensional arrays of size 20 and 30 respectively. Write a program in C to find out the elements which are common in both arrays.
5. Write a program in C to delete duplicate elements from an array of 20 integers.
6. Write a C program for multiplication of two spare matrix.
7. Write a C Program to count the numbers of elements in a linked list.
8. Consider that a single linked list contains the following elements :
   Roll_no. : integer
   Name : string of maximum of 25 Character
   Avg_no : float.
   Write a program in C to represent a single linked list with the above elements.
9. Write a C program to insert an ITEM after a given node in a Linked list.
10. Write a C program to find the location of the last node in a sorted linked list.
11. Write a C program to delete an element from a linked list the first node N contains the given ITEM of information.
12. Write a C program to implement circular linked list.
13. Write a C program to implement doubly linked list.
14. Write a program in C to implement stack using array.
15. Write a program in C to implement stack using linked list.
16. Write a program in C to transform the following infix expression to postfix expression :
    (A + B ^D)*(D/E)
17. Write a program in C to find the Fibonacci sequence upto 10th term.
18. Write a program in C to implement queue using array.
19. Write a program in C to implement queue using linked list.
20. Write a program in C to implement circular queue.
21. Write a program in C to implement priority queue.
22. Write a program in C for preorder traversal of a binary tree using stack.
23. Write a program in C for inorder traversal of a binary tree using stack.
24. Write a program in C for postorder traversal of a binary tree using stack.
25. Write a program in C to insert new nodes to a binary search tree and delete a node from binary search tree.
26. Write a program in C to find the location of the first node containing ITEM and also find the location of an edge in the graph G.
27. Write a program in C to insert new nodes to a graph G and delete a node from a graph G.
28. Write a program in C to implement Breadth-First Search.
29. Write a program in C to implement Depth-First Search.
30. Write a program in C to implement Bubble Sort.
31. Write a program in C to implement Quick sort.

32. Write a program in C to implement Selection sort.
33. Write a program in C to implement Merge sort.
34. Write a program in C to implement Linear search.
35. Write a program in C to implement Binary search.