Practical Sets

Set 1

Q. Program to implement the following functions in a doubly linked list using templates.
a) Insertion at head
b) Move last element to front
c) Remove duplicates from the linked list.
d) Display

Set 2

Q. Program to implement the following functions in a Binary search tree using templates.

a) Insertion
b) Inorder Traversal
c) Function to find the inorder successor of a given node
d) Function to find the maximum node in a BST

Set 3

Q. Program to implement template stacks using linked lists. Include push(), pop(), isempty() and display() functions. Also create the following functions:
a) Reverse a stack using recursion
b) Reverse a stack without using recursion.

Set 4

Q. Program to implement the following functions in a singly circular linked list using templates.
a) Insertion at head
b) Move last element to front
c) Remove duplicates from the linked list.
d) Display

Set 5

Q. Program to implement template stacks using linked lists. Include push(), pop(), isempty() and display() functions. Also create the following functions:

a) Sort the stack using a temporary stack
b) Reverse the words of a string using a stack

Set 6

Q. Program to implement a singly sorted linked list with the following functions
a) Addition of an element into its correct position
b) Function to find intersection of two sorted linked lists.
c) Display
d) Find the product of elements in the linked list.

Set 7

Q. Program to implement the following functions in a singly circular linked list using templates.

a) Insertion at tail
b) Swap kth node from the beginning with kth node from the end in the linked list.
c) Delete all occurrences of a given key in the linked list.
d) Display

Set 8

Q. Program to implement template stacks using linked lists. Include push(), pop(), isempty() and display() functions. Also create the following functions:
a) Remove all duplicate adjacent characters from a string using a stack
b) Check whether the given string is a palindrome using stacks.

Set 9

Q. Program to implement the following functions in a doubly linked list using templates.

a) Insertion at tail
b) Swap kth node from the beginning with kth node from the end in the linked list.
c) Delete all occurrences of a given key in the linked list.
d) Display

Set 10

Q. Program to implement the following functions in a singly circular linked list using templates.

a) Insertion at tail
b) Function to check whether the list is a palindrome
c) Count the number of times a given element occurs in a linked list.
d) Display

Set 11

Q. Program to implement the following functions in a Binary search tree using templates.

a) Insertion
b) Inorder Traversal
c) Divide a binary search tree into two trees, one tree with key < *K* and the other tree with keys ≥ *K*, where *K* is any key in the tree.

Set 12

Q1. Program to implement a queue from stacks. Include enqueue(), dequeue(), isempty() and display() functions.

Set 13

Q1. Program to implement the following functions in a Binary search tree using templates.

a) Insertion
b) Inorder Traversal
c) Function to compute the sum of values of all non-leaf nodes in a tree.
d) Display only the leaf nodes of the tree in inorder.

Set 14

Q1. Program to implement the following functions in a doubly linked list using templates.

a) Add at tail.
b) Add an element in the middle of the linked list.
c) Split the linked lists into two lists with each sublist containing alternating elements from the original list.
d) Display

Set 15

Q. Program to implement the following functions in a Binary search tree using templates.

a) Insertion
b) Function to compute the product of minimum and maximum element in the tree.
c) Inorder Traversal
d) Function to compute the sum of values of all leaf nodes in a tree.

Set 16

Q. Program to implement all the functions of the deque ADT using two stacks.

Set 17

Q. Program to implement the following functions in a doubly linked list using templates.

a) Insertion at tail
b) Function to check whether the list is a palindrome
c) Count the number of times a given element occurs in a linked list.
d) Display

Set 18

Q. Program to implement the following functions in a Binary search tree using templates.

a) Insertion
b) Inorder Traversal
c) Merge two binary search trees into one without inserting one node at a time from one tree into another.

Set 19

Q. Program to implement the following functions in a singly circular linked list using templates.

a) Add at head.
b) Add an element in the middle of the linked list.
c) Split the linked lists into two lists with each sublist containing alternating elements from the original list.
d) Display

Set 20

Q. Program to implement the following functions in a doubly linked list using templates.

a) Insertion at tail
b) Function to create two separate lists with even valued elements and odd valued elements separately.
c) Function to get nth node from end of the linked list.
d) Display