

4. Write a function that accepts two singly linked lists L1 and L2. It should print L3, where L3 is a singly linked list and $L3 = L1 - L2$.
5. Show the result of inserting
6, 3, 5, 8, 12, 15, 18, 19, 20, 24
into an empty binary search tree
6. Construct the binary tree for the following expression
 $(2x-3z+5)(3x-y+8)$

SECTION-C

7. Suppose a sequence of numbers is given like :
5, 10, 12, 18, 56, 68, 52, 85, 95
 - a. What are the various steps in which the number 52 will be found by the Binary search?
 - b. In how many steps the number 52 will be found in the linear search.
 - c. In How many steps it will be found in the binary search that the number 83 does not exist in this array in the array

Explain the algorithm involved in each of the problems a, b, c.

8. What are the various binary tree traversal techniques? Discuss with example and algorithm.
9. Suppose the names of few students of a class are as below :

RAM, Sham, Mohan, Sohan, Vimal, Komal

It is assumed that the names of the students is represented as a single link list :

- a. Write a algorithm to insert the name of a student RAMAN between sham and Mohan. Represent it graphically also
- b. Write a algorithm to delete the name Vimal from the list of the students. Represent it graphically also.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.