UNIT – II

2 (a) Write an algorithm for multiplication of two polynomials.

(b) Write an algorithm for conversion of infix expression to prefix expression and give prefix form for (A * B + (C/D) – E).

8+8

OR

2 (a) Write an algorithm for transpose and multiplication of sparse matrices.

(b) Write an algorithm for dequeue and circular queue.

8+8

UNIT – III

3 (a) Write short notes on :

(i) Header Linked list

(ii) Implementation of linked list in memory.

(b) Write an algorithm to add two polynomials using Doubly Linked List.

8+8

OR

3 (a) Write an algorithm for adding and deleting nodes from an ascending order linked list.

(b) Write an algorithm for binary search. Calculate its time complexity also.

8+8

UNIT – IV

4 (a) What is general true ? How will you implement it in memory ?

(b) What is AVL tree ? Insert the following numbers into an AVL tree :

28, 73, 85, 74, 72, 13, 11, 6

8+8

OR