CET2001B

S.Y. B. Tech. Academic Year 2019-20 Trimester: VI

Data Structures-II

LABORATORY WRITE UP

Experiment Number: 01

TITLE: Polynomial Using Circular Linked List

PROBLEM STATEMENT:

Implement polynomial operations using Circular Linked List: Create, Display, Addition and Evaluation

OBJECTIVE:

1. To study data structure: Circular Linked List
2. To Study different operations that could be performed on CLL
3. To Study Applications of Circular Linked list

THEORY: ***//To be Written by Students***

// Write theory by elaborating below points

Write in brief about Data structure:

- Circular Linked List
- Difference between SLL,CLL and DLL
- Various operations on CLL.

IMPLEMENTATION:

- **PLATFORM:**

- 64-bit Open source Linux or its derivatives.
- Open Source C++ Programming tool like g++/Eclipse Editor.

- **IINPUT & OUTPUT:**

TEST CASE NO	INPUT	OUTPUT
01	3X^2+5X+9 4X^6+8X	4X^6+3X^2+13X+9

- **TEST CONDITIONS:-**

1. Input at least five nodes.
2. Addition of two polynomials with at least 5 terms.
3. Evaluate polynomial with floating values.

- **PSEUDO CODE:** ***//To be Written by Students***

Write pseudo code for create, display, Addition and evaluation

- **TIME COMPLEXITY:** ***//To be Written by Students***

Find out time complexity of above operations

- **CONCLUSION:**

Thus, implemented different operations on CLL.

- **FAQs** ***//To be Written by Students***

1. Write an ADT for CLL.
2. How to perform multiplication of two polynomials?

3. Write polynomial addition algorithm if terms are not sorted.

- **PRACTICE ASSIGNMENTS**

1. Write a program to multiply two polynomials using CLL.

Code: // Can be copy pasted.