**PAF - Kiet**

**Data Structures**

**Practice Assignment – 2**

1. Write an alogrithm/Code that perform all the operations (create, traversing, searching, insertion, deletion, sorting ) on circular and two way (double) linked list
2. Cretae a linked list using array, and store the name, nic, gender and salary of 10 emplyees, store the starting employee on index 6 of an array, store the remainig employees in random indecis in alphabetic order
3. Find the polynomial POLY1 and POLY2 stored in fig
4. Beginning with POLY1, traverse the list by following the pointers to obtain the polynomial p1(x) = 3x­­5 - 4x3 + 6x – 5
5. Beginning with POLY1, traverse the list by following the pointers to obtain the polynomial p1(x) = 2x­­8 + 7x5 - 3x2

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | COEF |  | EXP |  | LINK |
| 1 | 0 |  | -1 |  | 5 |
| 2 |  |  |  |  |  |
| 3 | 6 |  | 1 |  | 7 |
| 4 | -3 |  | 2 |  | 10 |
| 5 | 3 |  | 5 |  | 8 |
| 6 | 2 |  | 8 |  | 9 |
| 7 | -5 |  | 0 |  | 1 |
| 8 | -4 |  | 3 |  | 3 |
| 9 | 7 |  | 5 |  | 4 |
| 10 | 0 |  | -1 |  | 6 |

1

POLY1

10

POLY2