**List of Experiment**

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| **Exp.**  **No.** | **List of Experiments** | **CO**  **Mapping** | **PO**  **Mapping** | **PSO**  **Mapping** |
| 1. | a) Implement Linear search on a List using Array in C.  b) The classic way to evaluate a polynomial is Horner's Rule.  Horner's rule can be stated recursively in C. | CO1 | PO1 | PSO1,  PSO2 |
| CO3 | PO5, PO9 |
| CO4 | PO10 |
| 2. | A a) Write a program in C to implement a menu driven stack application.  b) Write a program in C to evaluate a postfix expression.  c) Write a C program to convert a given infix expression  to postfix expression.  d) Convert a prefix expression to postfix in C.  e) Implement Tower of Hanoi recursively in C. | CO1 | PO1 | PSO1,  PSO2 |
| CO3 | PO5, PO9 |
| CO4 | PO10 |
| 3. | aa) Write a menu driven C program to implement circular  queue using array.  B b) Write a menu driven C program to implement double  ended queue. | CO1 | PO1 | PSO1 |
| CO3 | PO5, PO9 |
| CO4 | PO10 |
| 4. | a) Implement Singly Linked List and related operations  like insertion, deletion, display, reverse and sort in C.  b) Write a C program to add and multiply two  polynomials.  c) Implement queue using Circular linked list and  demonstrate JOSEPHUS problem in C.  d d)Implement Doubly Linked List and perform insertion,  deletion, display and reverse in C. | CO1 | PO1 | PSO1,  PSO2 |
| CO3 | PO5, PO9 |
| CO4 | PO10 |
| CO4 | PO10 |
| 5. | Create binary search tree and implement Preorder, Inorder  and Postorder traversal non-recursively in C. | CO1 | PO1 | PSO1 |
| CO3 | PO5, PO9 |
| CO4 | PO10 |
| 6. | Write a program to implement AVL tree with suitable operations in C. | CO1 | PO1 | PSO1 |
| CO3 | PO5, PO9 |
| CO4 | PO10 |
| 7. | Implement Expression tree in C. | CO1 | PO1 | PSO1,  PSO2 |
| CO3 | PO5, PO9 |
| CO4 | PO10 |
| 8. | Create Priority Queue and implement enqueue and  dequeue operations in C. | CO1 | PO1 | PSO1 |
| CO3 | PO5, PO9 |
| CO4 | PO10 |
| 9. | a) Write a program to implement DFS in C.  b) Write a program to implement BFS in C. | CO1 | PO1 | PSO1 |
| CO3 | PO5, PO9 |
| CO4 | PO10 |
| 10. | A a)Write a program to sort an array using Insertion sort in  C.  b) Write a program to sort an array using Merge sort in C. | CO2 | PO2 | PSO1 |
| CO3 | PO5, PO9 |
| CO4 | PO10 |
| 11. | Implement Linear, Binary and Interpolation search in C. | CO2 | PO2 | PSO1 |
| CO3 | PO5, PO9 |
| CO4 | PO10 |
| 12. |  | CO2 | PO2 |  |

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| **Exp.**  **No.** | **List of Experiments** | **CO**  **Mapping** | **PO**  **Mapping** | **PSO**  **Mapping** |
|  | Write a C program for Collision avoidance in Hash table  using Linear Probing. | CO3 | PO5, PO9 | PSO1,  PSO2 |
| CO4 | PO10 |