**SAVEETHA SCHOOL OF ENGINEERING**

**SAVEETHA INSTITUTE OF MEDICAL AND TECHNICAL SCIENCES DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**Academic Year 2022-23**

**List of Programs**

**Course Code – CSA03 Course Name - DATA STRUCTURES**

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|  | **PROGRAMS** |
|  | Write a C program to perform Matrix Multiplication |
|  | Write a C program to find Odd or Even number from a given set of numbers |
|  | Write a C program to find Factorial of a given number without using Recursion |
|  | Write a C program to find Fibonacci series without using Recursion |
|  | Write a C program to find Factorial of a given number using Recursion |
|  | Write a C program to find Fibonacci series using Recursion |
|  | Write a C program to implement Array operations such as Insert, Delete and Display |
|  | Write a C program to search a number using Linear Search method |
|  | Write a C program to search a number using Binary Search method |
|  | Write a C program to implement Linked list operations |
|  | Write a C program to implement Stack operations such as PUSH,  POP and PEEK |
|  | Write a C program to implement the application of Stack (Notations) |
|  | Write a C program to implement Queue operations such as ENQUEUE, DEQUEUE and Display |
|  | Write a C program to implement the Tree Traversals (Inorder, Preorder, Postorder) |
|  | Write a C program to implement hashing using Linear Probing method |
|  | Write a C program to arrange a series of numbers using Insertion Sort |
|  | Write a C program to arrange a series of numbers using Merge Sort |
|  | Write a C program to arrange a series of numbers using Quick Sort |
|  | Write a C program to implement Heap sort |
|  | Write a program to perform the following operations:  a) Insert an element into a AVL tree  b) Delete an element from a AVL tree  c) Search for a key element in a AVL tree |
|  | Write a C program to Graph traversal using Breadth First Search |
|  | Write a C program to Graph traversal using Depth First Search |
|  | Implementation of Shortest Path Algorithms using Dijkstra’s Algorithm |
|  | Implementation of Minimum Spanning Tree using Prim’s Algorithm |
|  | Implementation of Minimum Spanning Tree using Kruskal Algorithm |