

Lecture Plan

As per the Syllabus by IKGPTU

Lecture wise / Topic wise Distribution of the Syllabus to be taught

College: **CEC** Department: **CSE**

Program: **B.Tech** Semester with Section: **3rd**

Session: **2025-26**

Course Code: **BTCS 303-18** Course Name: **DSA Lab**

Lecture No.	Topics	Reference Material	Mapping With CO	Actual Teaching	Date of
1	Write a program to insert a new element at end as well as at a given position in an array.				
2	Write a program to delete an element from a given array whose value is given or whose position is given.				
3	Write a program to find the location of a given element using linear search.				
4	Write a program to find the location of a given element using binary search.				
5	Write a program to implement push and pop operations on a stack using linear array.				
6	Write a program to convert an infix expression to a postfix expression using stacks.				
7	Write a program to evaluate a postfix expression using stacks.				
8	Write a recursive function for Tower of Hanoi problem.				
9	Write a program to implement insertion and deletion operations in a queue using linear array.				
10	Write a menu driven program to perform following insertion operations in a single linked list: i) Insertion at beginning ii) Insertion at end iii) Insertion after a given node iv) Traversing a linked list				

11	Write a menu driven program to perform following deletion operations: i)Deletion at beginning ii)Deletion at end iii)Deletion after a given code			
12	Write a program to implement push and pop operations on a stack using linked list.			
13	Write a program to implement push and pop operations on a queue using linked list.			
14	Program to sort an array of integers in ascending order using bubble sort.			
15	Program to sort an array of integers in ascending order using selection sort.			
16	Program to sort an array of integers in ascending order using insertion sort.			
17	Program to sort an array of integers in ascending order using quick sort.			
18	Program to traverse a Binary search tree in Pre-order, In-order and Post-order.			
19	Program to traverse graphs using BFS.			
20	Program to traverse graphs using DFS.			

