

**GOVERNMENT COLLEGE OF ENGINEERING, JALGAON**  
*(An Autonomous Institute of Government of Maharashtra)*

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**Year and Program:** S.Y. B. Tech.(Computer)

**Academic Year:** 2018-19, Sem-IV

**Course Code and Course Name:** CO255-Data Structures and Files Lab

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Sr. No.	Title of Experiment	Date of Performance	Date of Comple	Page No.	Sign of Teacher
1	Write a program for Linked List Operations.				
2	Write a program to implement Stack as an ADT using Linked List				
3	Write a program to implement Queue as an ADT using Linked List				
4	Write a program for Doubly Linked List Operations				
5	Write a program to implement a single variable polynomial using Singly Linked List and perform Addition, Display and Evaluation				
6	Write a program to Create binary tree and perform recursive traversals.				
7	Write a program to Create binary Search tree and perform Non-recursive traversals.				
8	Write a program to perform operations on binary search tree like Create,Display Level wise, Height of the tree and print leaf nodes				
9	Represent a given graph using adjacency matrix and calculate Indegree and Outdegree of given graph				
10	Represent a given graph using adjacency matrix and perform BFS				

11	Represent a given graph using adjacency matrix and perform DFS				
12	Represent graph using adjacency matrix and generate minimum spanning tree using Prim's algorithm				
13	Implementation of Hash table using array and handle collisions using Linear probing with or without replacement				
14	Mini Project				

### CERTIFICATE

This is to certify that Mr. /Miss. \_\_\_\_\_  
 PRN \_\_\_\_\_ of **S.Y.B.Tech.(Computer Engineering)** has satisfactorily completed the experiments / work / assignments specified for Internal Continuous Assessment of **CO255-Data Structures and Files Lab** as specified in syllabus of this Institute for the academic year 2018-19.

**Course Teacher**  
**Ashwini Afre / Harish Gadade**

**Course Coordinator**  
**Harish D. Gadade**

**HoD**

**Principal**