ATME
College of Engineering

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ATME COLLEGE OF ENGINEERING
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Department of Computer Science and Engineering
(Artificial Intelligence & Machine Learning)

Assignment
on

"Data Structures and Applications"
Course Code: BCS304
Branch: CSE-AI&ML
Semester: 3rd

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Submitted To:
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List of Programs

Program No.	Program Description	Marks
1	Initialization of malloc () function into 0	
2	Printing the address of the pointer	
3	Selection sort with dynamic memory allocation	
4	Selection sort without dynamic memory allocation	
5	Declaration of two-dimensional array using dynamic memory allocation	
6	Pattern matching (general way)	
7	Self-Referential structure	
8	Pre increment and Post increment	
9	Post decrement and Pre decrement	
10	Regular Queue	
11	Operations of linked lists (traversal, insertion, deletion)	

12	Linked list using Stacks	
13	Linked list using Queues	
14	Time taken for arrays and linked lists during insertion and deletion	
15	Sparse Matrix	
16	Polynomial Representation	
17	How to create a tree	
18	Construct a tree using arrays	
19	Construct a binary tree using queues	
20	Insertion of nodes	
21	Deletion of nodes	
22	Depth search tree	
23	Breadth search tree	
24	Level order	
25	DFS and BFS using adjacency list (use stacks and queues in program)	
26	Calloc and Malloc functions checking if junk/zero is initialized to them	

27	Circular linked lists basic operations	
28	How to implement comparison of 2 strings using built in function	
29	In linked list insertion in the middle and deletion in the middle	
30	Binary tree traversal	
31	Circular Queue using Array(Modulo division , Queue full , Queue empty)	
32	Sparse Matrix representation using Linked List