



GIET UNIVERSITY, GUNUPUR – 765022
B. Tech –2nd Semester (2024-2025): CLASS TEST - I
BESBS 2040– Data Structures and Algorithms
LAB TEST QUESTIONS (COLUMN/ GROUP WISE)

COULMN/ GROUP	Questions
1.	Write a program to store N numbers using dynamic memory allocation and then find the largest element using UDF.
	Write a C program/algorithm to perform the operations on a single linked list: i) Insertion at beginning, ii) Deletion of 1 st node
2	Write a C program to create a structure called student to store your rollno, name, age. Create an array to input 5 students data and then create an UDF to display details where age>=20.
	Write a C program/algorithm to perform the operations on a single linked list: i) insertion at end, i) deletion of last node
3	Write a C program/ algorithm to create a stack of numbers and perform using UDF: (i) push operation (ii) pop operation (iii) display operation
	Write a C program/algorithm to perform the operations on a single linked list: i) insertion at location ii) searching for a node item
4	Write a program to create a structure for products of a super market. Store product no, name and cost for N products using dynamic memory allocation. Display the products whose cost is in between 100 rupees to 1000 rupees.
	Write a C program/algorithm to create methods for operations deletion, and display on 1D array of elements using UDF.
5	Write a C program/algorithm to create a linear queue and perform the following operations using UDF: (i) insertion ii) deletion
	Write a C program to create methods for operations insertion and display on 1D array of elements using UDF.
6	Write a C program/algorithm to create a circular queue and perform the following operations using UDF: (i) insertion ii) deletion and iii) Traversal
	Write a program to implement selection sort on a given list of array elements.
7	Write a C program that uses functions to implement linked stack on single linked list.
	Write a program to input a string and sort the alphabets in ascending order using bubble sort.
8	Write a C program/algorithm that uses functions to implement linked queue on single linked list.
	Write a program to implement insertion sort on a given list of array elements.
9	Write a c program/algorithm to perform the operations on a single linked list: i) Insertion at beginning, ii) Deletion of 1 st node
	Write a C program to create function for performing matrix multiplication using UDF
10.	Write a C program/algorithm to input elements into a 4X4 matrix, check it for sparse or not. If sparse then store the non-zero elements into an alternate matrix and then display it using UDF.
	Write a program to create a structure for products of a super market. Store product no, name and cost for N products using dynamic memory allocation. Display the products whose cost is in between 100 rupees to 1000 rupees.