University of Engineering and Management (UEM),Kolkata

Department of Computer Applications

Stream: MCA

Session: 2023-2025

Subject Name: Data Structures with C Laboratory

Subject Code: MCAESCCA193

Class taken by:
Kaustuv Bhattacharjee (KBH)
Sujata Ghatak (STG)

1. **Write a C program to read a 2D array (with most of the elements as 0s) and then represent the same array as Sparse Metrics.**
2. **Write a C program to pass an array to a function using Call by Value, update the array values in the function, print the array elements both in the function and in the calling function.**
3. **Write a C program to pass an array to a function using Call by Reference, update the array values in the function, print the array elements both in the function and in the calling function.**
4. **Write a program to display n number of elements. Memory should be allocated dynamically using malloc( ).**
5. **Write a program to display n number of elements. Memory should be allocated dynamically using calloc( ).**
6. **Write a program to allocate memory using malloc( ) and then reallocate the previously allocated memory using realloc( ). Display the elements which have been taken after reallocation.**
7. **Write a program to allocate memory using calloc( ) and then reallocate the previously allocated memory using realloc( ). Display the elements which have been taken after reallocation.**
8. **Write a C program to search an element in an Array using dynamic memory allocation.**