

**GLS UNIVERSITY**  
**Faculty of Computer Applications & Information Technology**  
**BCA Programme**  
**SEM III**  
**DATA STRUCTURE PRACTICAL**  
**Module – 1**

**\* Perform below all the practical using C++ concepts:**

1. Write a program that will perform all the following array operations:
  - Insert an element into an array
  - Delete an element from an array
  - Read an array elements
  - Display the array elements
  - Search an array element
2. Write a program that will perform all the following array operations:
  - Sort the array
  - Reverse the array
3. Write a program to create a sparse matrix.
4. Write a program to check and create a square matrix
5. Write a program to check and create Lower matrix and Upper matrix.
6. Write a program to find sum and average of diagonal elements.
7. Write a program to check and create diagonal matrix.
8. Write a program to check and create identity matrix.