

## DATA STRUCTURES LABORATORY

Time : Three hours

Maximum : 100 marks

Break up of marks :

Record Note Book : 10

Algorithm : 10

Program : 50

Debugging : 10

Execution : 10

Result : 10

Total : 100

1. Examiner has to choose TWO questions ONE from Section A and another from Section B for each candidate.
2. Each question carry 50 marks.
3. Candidate has to write algorithm and C++ code.

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### SECTION A

1. Write a C++ program to sort the following list using Bubble sort :  
-13, 25, -45, 36, 84, 10, 15, -12, 84.

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2. Write a C++ program to sort the given set of n numbers using selection sort.
3. Write a C++ program to search an element using Binary search.

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4. Write a C++ program to copy the content of one file into another file.

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5. Write a C++ program to search for a given element using linear search.

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### SECTION B

6. Write a C++ program to create linked list and perform its operations using arrays.

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7. Write a C++ program to add and subtract two m×n matrices.

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8. Write a C++ to implement stack operations using linked list.

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9. Write a C++ program to sort the given set of n elements using Quick sort.

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10. Write a C++ program to sort array elements using insertion sort.