Department of Computer Science and Engineering,
Anna University, Chennai- 600025
CS23302 – Data Structures and Algorithms
Practical
July – November 2026
Year/Sem/Batch : II/III/ N

Exercise: 10	Priority Queue & Heap	18 – Sep - 2026

Spot (5 Marks)

1. Given the elements 15, 10, 20, 8, 25, construct a max-heap using successive insertion.

   Write the final heap in array representation.

2. Write a C program to implement a max-heap with the following operations:

   - Insert an element.
   - Delete the maximum element.
   - Display the heap.

Test the program with suitable input and show the output after each operation.

3. What is the output of the following sequence of operations on an initially empty max-priority queue?

   Insert(30)

   Insert(10)

   Insert(50)

   DeleteMax()

Write the element deleted and the remaining elements in priority order.