



United International University  
Department of Computer Science and Engineering  
CSE 2215 Data Structures and Algorithms(Sec BD),  
Class Test 4, Fall 2024  
Total Marks: 20, Time: 20 minutes

---

1. Show the steps of heapsort in descending order for the following numbers. The given heap is a Minheap. Just show the steps of sorting. Draw separate trees for each step and write down the final sorted sequence. [14]

6, 12, 28, 35, 49, 37, 62, 42

2. Consider the following priority queue implemented as a Maxheap.

45, 27, 38, 19, 11, 14, 9, 7, 10

Suppose you want to increase the value of 7 to 35. Show the steps clearly with separate trees for each step. [6]