

Data Structures (ITPC 203) Assignment:**Date: 13.11.2023**

1. Write the algorithms for implementing Heap sort, using the following.
What is the complexity for this sorting technique?
 - a. Minheap
 - b. Maxheap
2. Let $X = \{x_1, x_2, \dots, x_n\}$ be an array of n integers and x is an integer. Propose an efficient algorithm to determine whether there are two elements in X whose sum is exactly x . What is the time-complexity of the proposed algorithm?