CS6363 Design and Analysis of Computer Algorithms

Homework 4

Assigned: Wednesday 4/6/2022   **Due:** 11:59PM, Thursday, 4/14/2022

Solutions should be submitted to eLearning before due date. Please submit your solutions file ".pdf", ".docx" or "doc" format.

1. Let $X[1,\ldots,n]$ and $Y[1,\ldots,n]$ be two arrays that are already sorted. Give an $O(lgn)$-time algorithm to find the median of all $2n$ elements in arrays X and Y **(30 pt)**

2. Solve Exercise 23.1-10 on page 630 in CLRS **(40 pt)**

3. Solve Exercise 16.2-5 on page 428 in CLRS **(30 pt)**