

CSC3100: Data Structures

Assignment 3

Due: 11::59pm, April 20, 2022

1 Problems

All the problems can be found from the textbook online:

https://edutechlearners.com/download/Introduction_to_algorithms-3rd%20Edition.pdf

1.1 List, Stack, and Queues

Problem 1(10 points). CLRS Problem 10.1-2 (3rd edition page 235)

Problem 2(10 points). CLRS Problem 10.1-6 (3rd edition page 236)

Problem 3(20 points). CLRS Problem 10.2-5 (3rd edition page 240)

1.2 Binary Search Trees

Problem 4(10 points). CLRS Problem 12.2-7 (3rd edition page 293)

Problem 5(10 points). CLRS Problem 12.3-4 (3rd edition page 299)

Problem 6(20 points). CLRS Problem 12.3-5 (3rd edition page 299)

1.3 Heaps

Problem 7(10 points). CLRS Problem 6.1-2 (3rd edition page 154)

Problem 8(10 points). CLRS Problem 6.1-6 (3rd edition page 154)

2 Submission

Please upload your soft copy to Blackboard.

If you have any questions for the assignment, please contact the TA(HUANG Wenyu, 221019014@link.cuhk.edu.cn)