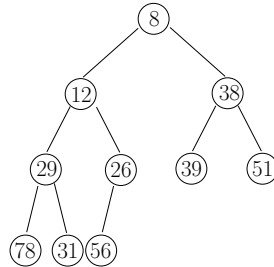


COMP3506/7505: Quiz 2

Name:

Student ID:

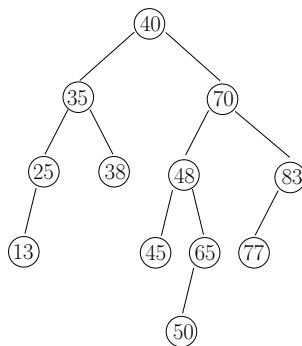
Problem 1 (15 marks). Show the priority queue after inserting the number 10 into the binary heap below:



Problem 2 (15 marks). Show the priority queue after performing a delete-min on the binary heap shown in Problem 1.

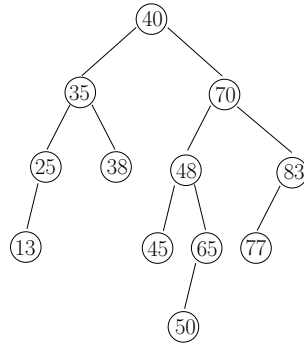
Problem 3 (5 marks). Give the array representation of the binary heap shown in Problem 1.

Problem 4 (15 marks). Consider the following AVL-tree. Give the sequence of nodes visited when we use the tree to find the predecessor of 69.



[PLEASE TURN OVERLEAF]

Problem 5 (15 marks). Consider the following AVL-tree again. Give the sequence of nodes visited when we use the tree to find the successor of 69.



Problem 6 (15 marks). Consider the AVL-tree in Problem 5. Give the resulting AVL-tree after inserting 55.

Problem 7 (20 marks). Consider the AVL-tree in Problem 5. Give the resulting AVL-tree after deleting 38.