

1) (10pts) ANL (Algorithm Analysis)

Determine the best case run time in terms n for each of the following functions/operations.

- a) Finding the maximum value in an unsorted linked list of n elements _____
- b) Inserting an item into a binary search tree of n elements _____
- c) Inserting an item into a binary heap of n elements _____
- d) Sorting an array of n elements using Merge Sort _____
- e) Deleting an element from a circular linked list of n elements _____

Determine the worst case run time in terms of n for each of the following functions/operations.

- f) Deleting an item from an AVL tree of n elements _____
- g) Deleting the minimum item from a binary min heap of n elements _____
- h) Inserting an item into a binary search tree of n elements _____
- i) Sorting an array of n elements using Heap Sort _____
- j) Deleting an element from a doubly linked list of n elements _____