

# Quiz #02

25 March 2019

20 minutes

Name: \_\_\_\_\_ Roll No: \_\_\_\_\_

**Honor Code:** By signing below, I am declaring under oath that  
I will solve the quiz by myself solely and will not  
Take any help from neighboring fellows.

Signature

A. Sort the following complexity classes in increasing order.

[10]

$O(n \log n)$ ,  $O(n^2 \log n)$ ,  $O(n)$ ,  $O(1)$ ,  $O(n^n)$ ,  $O(\log n)$ ,  $O(2^n)$ ,  $O(\log^3 n)$

Complexity Ordering	Functions from the list above
1 (Most efficient)	
2	
3	
4	
5	
6	
7	
8 (Least efficient)	

B. What are the BIG-Three, just write names.

[3]

C. Briefly and precisely describe Object and Comparable (ref: Mark Alan Weiss Book, Ch 01).

[7]

- D. Write the following member function of the LinkedList class to append a list, passed as argument, at its tail. LinkedList class have a node (self-referencing) pointer **head** points to the start of the list. [10]

```
void LinkedList::append(const LinkedList &lst)
```

- E. Again, write the following member function of the LinkedList class to append a list, passed as argument, at its tail. LinkedList class have a two node (self-referencing) pointers **head** and **tail** points to the first and last nodes of the list respectively. [10]

```
void LinkedList::append(const LinkedList &lst)
```