CS3353: Data Structures and Algorithm Analysis I
Fall 2022

Review Quiz #1

- Name only: _____
- Release date: Aug 31, 2022 (Wednesday)
- Total 5 pts

1. A linked list is a   [b]

[1 pt]

   a) Random access structure   b) Sequential access structure   c) Both   d) None of these

2. An Array is a   [c]

[1 pt]

   a) Random access structure   b) Sequential access structure   c) Both   d) None of these

3. Find the time complexity of the following code snippets

[1 pt]

```
for (i= 0 ; i < n; i++) {              for (i= 0 ; i < n; i++) {
    cout<< i << " " ;                      for (j = 0; j<n ;j++) {
    i++;                                       cout<< i << " ";
}                                          }
O(n)                                   }    O(n²)
```

$O(n)$

$O(n^2)$

4. Based on the class of single linked list, insert a node at the end of the list. Complete the codes.

[2 pts]

```
class IntSLLNode {
    public:
        IntSLLNode() {
            next = 0;
        }
        IntSLLNode(int i, IntSLLNode *in = 0) {
            info = i; next = in;
        }
        int info;
        IntSLLNode *next;
}
```



```
addToTail (int el) {


    Please refer to lecture slides for answer


}
```