

Data Structures and Algorithms- Lab Quiz 2

Question 1

2 / 2 pts

Predict the output of the following Java code?

```
public class Test {  
    public static void main(String[] args) {  
        Queue<Integer> q = new LinkedList<>();  
        q.add(10);  
        q.add(20);  
        q.add(30);  
        q.remove(20);  
        System.out.println(q);  
    }  
}
```

- ☒ [10, 30]
- ☐ [10, 20, 30]
- ☐ [20,30]
- ☐ [10]

Question 2

2 / 2 pts

Predict the output of the following Java code

```
public class Test {  
    public static void main(String[] args) {  
        Stack<Integer> s = new Stack<>();  
        s.push(10);  
        s.push(20);  
        s.push(30);  
        s.pop();  
        s.push(40);  
        System.out.println(s.peek());  
    }  
}
```

- ☒ 40
- ☐ 30
- ☐ 10
- ☐ 20

Question 3

2 / 2 pts

Predict the output of the following Java code

```
TreeNode root = new TreeNode(5);  
root.left = new TreeNode(3);  
root.right = new TreeNode(8);  
root.left.left = new TreeNode(1);  
root.left.right = new TreeNode(4);
```

```
System.out.println(root.left.right.val);
```

☒ 4

☐ 1

☐ 8

☐ 3

Question 4

2 / 2 pts

Predict the output of the following Java code

```
Queue<Integer> queue = new LinkedList<>();  
queue.add(5);  
queue.add(3);  
queue.remove();  
System.out.println(queue.peek());
```

☒ 3

☐ 5

☐ null

☐ None of the options

Question 5

2 / 2 pts

Predict the output of the following Java code

```
PriorityQueue<Integer> queue = new PriorityQueue<>();  
queue.add(5);  
queue.add(3);  
queue.add(7);  
System.out.println(queue.peek());
```

☒ 3

☐ 5

☐ 7

☐ None of the options