**Data Structure Lab**

**ODD 2022**

**Lab Test-1**

**Time: 40 min**

**Marks: 20**

**Instructions**:

1. Submit a pdf file having code and output screenshots
2. FilenameshouldbeRollNo\_Name\_LabTest1\_DS.pdf

Q1. **[CO1]** Design and implement a stack with following operations:

* push()
* pop()
* isEmpty()
* isFull()
* getMin**():**  should return minimum element from the Stack. **[CO3]**

All these operations of Stack must have a time and space complexity of O(1).

**Example:**

**Input:**Consider the following Stack

16  –> TOP  
15  
29  
19  
18

When getMin() is called it should return 15,   
which is the minimum element in the current stack.

If we do pop two times on stack, the stack becomes

29  –> TOP  
19  
18

When getMin() is called, it should return 18   
which is the minimum in the current stack.