

# National University of Computer and Emerging Sciences



## Quiz 1

### Computer Programming (CL103)

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Section	B
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#### Quiz 1 - Computer Programming Lab-B

**Total Time: 30 mins**  
**Marks: 15**

**Total**

### Programming Question: [10 points]

**Note: Submit only one file with the following name “LXX-XXXX\_quiz1”. The input file name must be “input” and format must be “.txt”. Please don’t change the naming convention for your submission file as well as file used for input.**

You are given an input file with following format:

```
N
case#1
case#2
.
.
.
```

Where N denotes the number of cases that follows. Case#1, case#2 ... are integers greater than 0. Your task is to store the number as digits (0-9) in a dynamic array. Print case# followed by the elements of the array.

Note: You must not allocate array initially with a large number but the size must increase dynamically. Make sure to use delete operator properly. You may print array in reverse order to get the desired output.

Sample input from file:

```
2
4321
678351
```

Sample output on console:

Case#1

4
3
2
1

Case#2

6
7
8
3
5

1

**Answer the following [5 points]**

**Submit a txt file with answers for this.**

1. Write the general structure to allocate and deallocate memory for a dynamic 2D array pseudocode.
2. What do operators 'new' and 'delete' do? Give a simple one line answer for each.