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gauravsharma727545@gmail.com ▾

NPTEL (<https://swayam.gov.in/explorer?ncCode=NPTEL>) » Programming, Data Structures And Algorithms Using Python (course)

[Announcements \(announcements\)](#)

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Online Test 1, Question 4

Due on 2019-09-26, 11:30 IST

Course
outline

**How to access
the portal**

**Week 1:
Introduction**

Week 1 Quiz

**Week 2:
Basics of
Python**

Week 2 Quiz

**Week 2
Programming
Assignment**

**Week 3: Lists,
inductive
function**

definitions,
sorting

Week 3
Programming
Assignment

Week 4:
Sorting,
Tuples,
Dictionaries,
Passing
Functions, List
Comprehension

Week 4 Quiz

Week 4
Programming
Assignment

Week 5:
Exception
handling,
input/output,
file handling,
string
processing

Week 5
Programming
Assignment

Week 6:
Backtracking,
scope, data
structures;
stacks,
queues and
heaps

Week 6 Quiz

Week 7:
Classes,
objects and
user defined
datatypes

Week 7 Quiz

Instructions

This is the first of two online programming tests.

- These tests account for 25% of the total evaluation for the course.
- The duration of the test is 2 hours.
- The first test will be from 9:30-11:30 am and the second from 8:00-10:00 pm, on Thursday, 26 September 2019.
- You can attempt either of the tests. The best score will be counted..

Note: In this question, you have to complete the code provided, as explained in the problem statement.

Question 4

A list is a non-decreasing if each element is at least as big as the preceding one. For instance [], [7], [8,8,11] and [3,19,44,44,63,89] are non-decreasing, while [3,18,4] and [23,14,3,14,3,23] are not. Here is a recursive function to check if a list is non-decreasing. You have to fill in the missing argument for the recursive call.

```
def nondecreasing(l):  
    if l==[] or len(l) == 1:  
        return(True)  
    else:  
        return(...)
```

Open up the code submission box below and fill in the missing argument for the recursive call.

Sample Test Cases

	Input	Output
Test Case 1	nondecreasing([17])	True
Test Case 2	nondecreasing([])	True
Test Case 3	nondecreasing([3,19,44,44,63,89])	True
Test Case 4	nondecreasing([23,14,3,14,3,23])	False

**Week 8:
Dynamic
programming,
wrap-up**

**Week 8
Programming
Assignment**

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**Online
Programming
Test - Sample**

**Online
Programming
Test 1, 26 Sep
2019, 09:30-
11:30**

- ☐ Online Test 1, Question 1
(/noc19_cs40/progassignment?name=113)
- ☐ Online Test 1, Question 2
(/noc19_cs40/progassignment?name=114)
- ☒ Online Test 1, Question 3
(/noc19_cs40/progassignment?name=115)
- ☐ **Online Test 1, Question 4**
(/noc19_cs40/progassignment?name=116)
- ☒ Online Test 1, Question 5
(/noc19_cs40/progassignment?name=117)
- ☒ Online Test 1, Question 6
(/noc19_cs40/progassignment?name=118)

Test Case 5	nondecreasing([8,8,11])	True
Test Case 6	nondecreasing([3,18,4])	False

Due Date Exceeded.
As per our records you have not submitted this assignment.

- Online Test 1,
Question 7
(/noc19_cs40/progassignment?
name=119)

- Online Test 1,
Question 8
(/noc19_cs40/progassignment?
name=120)