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



## Course outline

How does an NPTEL online course work? ()

Week 1 : Introduction ()

Week 1 Quiz ()

Week 2: Basics of Python ()

Week 2 Quiz ()

☐ Quiz: Week 2 Quiz (assessment? name=89)

Week 2 Programming Assignment ()

# Week 2 Quiz

The due date for submitting this assignment has passed.

**Due on 2020-02-12, 23:59 IST.**

**As per our records you have not submitted this assignment.**

All questions carry equal weightage. All Python code is assumed to be executed using Python3. You may submit as many times as you like within the deadline. Your final submission will be graded.

**Note:**

- If the question asks about a value of type string, remember to enclose your answer in single or double quotes.
- If the question asks about a value of type list, remember to enclose your answer in square brackets and use commas to separate list items.

1) One of the following 10 statements generates an error. Which one? (Your answer should be a number between 1 and 10.)

```
x = [1,"abcd",2,"efgh",[3,4]] # Statement 1
y = x[0:6] # Statement 2
z = x # Statement 3
w = y # Statement 4
x[1] = x[1][0:3] + 'd' # Statement 5
y[2] = 4 # Statement 6
z[1][1:3] = 'yzw' # Statement 7
z[0] = 0 # Statement 8
w[4][0] = 1000 # Statement 9
a = (x[4][1] == 4) # Statement 10
```



**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 ()**

No, the answer is incorrect.

Score: 0

Feedback:

*z[1] is a string, which is immutable, so assignment to the slice z[1][1:3] is not permitted.*

Accepted Answers:

(Type: Regex Match) `\s*7\s*`

**2.5 points**

2) Consider the following lines of Python code.

**2.5 points**

```
x = [423, 'b', 37, 'f']
u = x[1:]
y = u
w = x
u = u[0:]
u[1] = 53
x[2] = 47
```

After these execute, which of the following is correct?

- ☐ `x[2] == 47, y[1] == 37, w[2] == 47, u[1] == 53`
- ☐ `x[2] == 47, y[1] == 53, w[2] == 47, u[1] == 53`
- ☐ `x[2] == 47, y[1] == 37, w[2] == 37, u[1] == 53`
- ☐ `x[2] == 47, y[1] == 53, w[2] == 37, u[1] == 53`

No, the answer is incorrect.

Score: 0

Feedback:

*x and w are aliased. u and y are not, after the assignment `u = u[0:]`. So the update to `x[2]` affects `w[2]` while the update to `u[1]` leaves `y[1]` unchanged.*

Accepted Answers:

`x[2] == 47, y[1] == 37, w[2] == 47, u[1] == 53`

3) What is the value of second after executing the following lines?

```
first = "tarantula"
second = ""
for i in range(len(first)-1,-1,-1):
    second = first[i] + second
```

No, the answer is incorrect.

Score: 0

Feedback:

*The loop copies the string from right to left.*

Accepted Answers:

(Type: Regex Match) `\s*"tarantula"\s*`

(Type: Regex Match) `\s*"tarantula"\s*`



Week 6 Quiz  
( )

Week 7:  
Classes,  
objects and  
user defined  
datatypes ( )

Week 7 Quiz  
( )

Week 8:  
Dynamic  
programming,  
wrap-up ( )

Week 8  
Programming  
Assignment  
( )

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Sample ( )

Online  
Programming  
Test 1, 01  
Dec 2020,  
10:00-12:00  
( )

Online  
Programming  
Test 2, 01  
Dec 2020,  
20:00-22:00  
( )

Online  
Programming  
Test 1, 09

2.5 points

4) What is the value of list1 after the following lines are executed?

```
def mystery(l):  
    l = l[0:5]  
    return()  
  
list1 = [44,71,12,8,23,17,16]  
mystery(list1)
```

No, the answer is incorrect.

Score: 0

Feedback:

*Since l is reassigned a value within the function, it refers to a new value and the update does not affect the value of list1 outside the function. [44, 71, 12, 8, 23, 17, 16]*

Accepted Answers:

*(Type: Regex Match) \s\*\[\s\*44\s\*,\s\*71\s\*,\s\*12\s\*,\s\*8\s\*,\s\*23\s\*,\s\*17\s\*,\s\*16\s\*\]\s\**

2.5 points



**Mar 2021,  
10:00-12:00  
()**

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**Online  
Programming  
Test 2, 09  
Mar 2021,  
20:00-22:00  
()**

