

**Questions before we start?**

# Intelligent Control

## Lecture 5 – Midterm Fun

# Contents

**Presentation**

**Quiz**

**Wrap-up**

## **Presentations (7 min max per group)**

Time to stretch!



Leave your desk!

# Quiz

**No electronic devices plz.**

Course content

Course organization

Things you need to practice yourself

Live coding



## Question 1

Name 3 Python types

Specify whether they are mutable or immutable

## Question 1

Name 3 Python types

Specify whether they are mutable or immutable

## Question 2

Python variables are associated with types that are dynamically assigned.

True or False?



## Question 3

Name 2 textbook that we use in this course.

Which one has fewer number of chapters?

## Question 4

Specify the outcome:

```
int('3')
```

Specify the outcome:

```
int(3.2)
```

## Question 5

Specify the outcome:

$2^{**}2$



Specify the outcome:

`float(1)`

Specify the returned value:

```
print('2')
```

## Question 6

Specify the outcome:

5 // 2

Specify the outcome:

6 % 3

## Question 7

Specify the outcome:

$$3 \ll 2$$

Specify the outcome:

$8 \gg 1$



## Question 8

Specify the outcome:

`seq[1]`

Specify the outcome:

Seq = [0, 1, 3]

seq[2]

Specify the outcome:

```
seq = [0, 1, 3]
```

```
seq[2]
```

## Question 9

Specify the outcome:

`seq = [0, 1, 3]`

`seq[5]`

Specify the outcome:

```
seq = [0, 1, 3]
```

```
seq[5:]
```

Specify the outcome:

```
seq = [0, 1, 3]
```

```
seq[:5]
```



## Question 10

Specify the outcome:

```
seq = [0, 1, 2, 3, 4, 5]
```

```
seq[::-1]
```

Specify the outcome:

```
seq = [0, 1, 2, 3, 4, 5]
```

```
seq[::-1]
```

Specify the outcome:

```
seq = [0, 1, 2, 3, 4, 5]
```

```
seq[::2]
```

## Question 11

Specify the outcome:

```
seq = [0, 1, 3 ]
```

```
PRINT(seq)
```

What's printed:

```
seq = [0, 1, 3, ]
```

```
print(seq)
```

What's printed:

```
seq = [0]
```

```
print(print(seq))
```



## Question 12

What's the one and only purpose of this course?

What's the keyword to success in this course in the lecturer's opinion?

He's really annoying huh?

## Question 13

Debug:

```
def this_func(c, d)
```

```
    c += 1
```

```
    d[0] = 3
```

```
a = 1
```

```
b = [1, 2]
```

```
this_func(a)
```

```
print(a, b)
```

## Question 14

What's printed:

```
def this_func(c, d):  
    c += 1  
    d[0] = 3
```

```
a = 1  
b = [1, 2]  
this_func(a, b)  
print(a, b)
```



What's printed:

```
def this_func(c=0, d):
```

```
    c += 1
```

```
    d[0] = 3
```

```
a = 1
```

```
b = [1, 2]
```

```
this_func(b)
```

```
print(a, b)
```

## Question 15

What's printed:

```
def this_func(c=0, d):  
    c += 1  
    d[0] = 3  
    return c, d
```

```
a = 1  
b = [1, 2]  
print(this_func(a,b) )
```

## Question 16

What happens when you end a string with an odd number of  
backslash(s)?

What should you use for indentation in Python?

## Question 17

Describe the differences between break and continue.



When could you use pass?

## Question 18

When could you use pass?

Difference between while loop and for loop?

## Question 19

What does try ... except ... else do?

## Question 20

Name 3 python sequences.



Mutable or immutable?

Give 3 invalid python variable identifiers.

## Question 21

Explain what happens:

`a = '1234567890'`

`b = a`

`a = '123'`

Count the number of references for all string objects:

```
a = '1234567890'
```

```
    b = a
```

```
    a = '123'
```

```
    a += '4567890'
```

## Question 22

When do you delete an object in python?  
Can you delete objects yourself?

## Question 23



Write a for loop to print number from 0 to 10 including 10.

## Question 24

Write a for loop to print number from 0 to 10 including 10.  
Each number should be in separate lines.  
The code should be in only one line.

## Question 25

Define a test framework that contains stepA, stepB, stepC.  
Use dummy functions for stepA, stepB, stepC.  
Call the steps sequentially.  
If an error occurs in the testing process,  
print('ERROR')

## Question 25

Write a function that takes one input value at a time, that prints everything except integer.

[True, 1 , 2, 3, 'fart', 4, 1.1, 2.2, 3.3, 4.4, '10.1']

# Wrap-up

- ✓ Next week we spend the entire week to go through python class



## Wrap-up

✓ Practice makes perfect.