

. Python is an interpreted language. Which of the following statements correctly describes an interpreted language? **1 / 1 punto**

- ☐ Python needs to be built prior to it being run.
- ☒ The source code is converted into bytecode that is then executed by the Python virtual machine.
- ☐ Python will save all code first prior to running.
- ☐ The source code is pre-built and compiled before running.



Correcto

Correct! Unlike other programming languages Python does not need to be built or linked for the code to run.

2. Why is indentation important in Python? **1 / 1 punto**

- ☐ The code will compile faster with indentation.
- ☒ Python used indentation to determine which code block starts and ends.
- ☐ It makes the code more readable.
- ☐ The code will be read in a sequential manner



Correcto

Correct! Python does not use curly braces like other languages, so it leverages off indentation to determine where the code blocks start and end.

3. What will be the output of the following code? **1 / 1 punto**

```
1 names = ["Anna", "Natasha", "Mike"]
2 names.insert(2, "Xi")
3 print(names)
```

- ☒ ["Anna", "Natasha", "Xi", "Mike"]
- ☐ ["Anna", "Xi", "Mike"]
- ☐ ["Anna", "Natasha", Xi]
- ☐ ["Anna", "Natasha", 2, "Xi", "Mike"]



Correcto

Correct! The insert() function displaces the remaining list after inserting the element passed.

4. What will be the output of the code below?

1 / 1 punto

```
1 for x in range(1, 4):  
2     print(int((str((float(x))))))
```

- ☐ "one", "two"
- ☐ 1.0, 2.0
- ☐ 1, 2
- ☒ Will give an error



Correcto

Correct! The float will first convert into string and output such as <class 'float'> which cannot be converted into int.

5. What will be the output of the following code:

1 / 1 punto

```
1 sample_dict = {1: 'Coffee', 2: 'Tea', 3: 'Juice'}  
2 for x in sample_dict:  
3     print(x)
```

- ☐ {1 2 3}
- ☒ 1 2 3
- ☐ 'Coffee', 'Tea', 'Juice'
- ☐ (1, 'Coffee')
(2, 'Tea')
(3, 'Juice')



Correcto

Correct! The default values printed from a dictionary are keys.

6. What will be the output of the recursive code below?

1 / 1 punto

```
1 def recursion(num):  
2     print(num)  
3     next = num - 3  
4     if next > 1:  
5         recursion(next)  
6  
7     recursion(11)
```

☒ 11 8 5 2

☐ 2 5 8

☐ 2 5 8 11

☐ 8 5 2



Correcto

Correct! The values printed have difference of 3, but printed in opposite order.

7. What will be the type of time complexity for the following piece of code:

1 / 1 punto

```
1 def bigo(numbers):  
2     for i in numbers:  
3         print(numbers)  
4  
5     bigo([1, 7, 13, 19])
```

☒ Linear Time

☐ Quadratic Time

☐ Logarithmic Time

☐ Constant Time



Correcto

Correct! The single for loop will have linear time depending on the size of the input sequence.

8.What will be the output of the code below:

1 / 1 punto

```
1  str = 'Pomodoro'
2  for l in str:
3      if l == 'o':
4          str = str.split()
5          print(str, end=" ", " ")
```

- ☐ ['P', 'm', 'd', 'o']
- ☒ Will throw an error
- ☐ ['Pomodoro', 'modoro', 'doro', 'ro']
- ☐ ['Pomodoro']



Correcto

Correct! The first time split() function is used, the str variable will convert into a list over which split() cannot be used and will give an error.

9.Find the output of the code below:

1 / 1 punto

```
1  def d():
2      color = "green"
3      def e():
4          nonlocal color
5          color = "yellow"
6      e()
7      print("Color: " + color)
8      color = "red"
9  color = "blue"
10 d()
```

- ☐ red
- ☐ blue
- ☐ green

☐ yellow



Correcto

Correct! The color variable will retain the value from the nonlocal variable from e()

10. Find the output of the code below:

1 / 1 punto

```
1  num = 9
2  class Car:
3      num = 5
4      bathrooms = 2
5
6  def cost_evaluation(num):
7      num = 10
8      return num
9
10 class Bike():
11     num = 11
12
13 cost_evaluation(num)
14 car = Car()
15 bike = Bike()
16 car.num = 7
17 Car.num = 2
18 print(num)
```

☐ 10

☐ 5

☒ 9

☐ 2



Correcto

Correct! The value of the global variable will remain unchanged.

11. Which of the following is the correct implementation that will return **True** if there is a parent class P, with an object p and a sub-class called C, with an object c?

1 / 1 punto

☐ print(issubclass(P,C))

☐ print(issubclass(C,c))

☒ print(issubclass(C,P))

☐ print(issubclass(p,C))



Correcto

Correct! It can be read as C is sub-class of P.

12. Django is a type of:

1 / 1 punto

☐ Micro-framework

☒ Full-stack framework

☐ Asynchronous framework



Correcto

Correct! Django is a Full-stack framework.

13. Which of the following is not true about Integration testing:

1 / 1 punto

☒ It is where the application is tested as a whole.

☐ Primarily dealt by the tester.

☐ Tests the flow of data from one component to another.

☐ It combines unit tests.



Correcto

Correct! This is the case with system testing.

14. While using pytest for testing, it is necessary to run the file containing the main code before we can run the testing file containing our unit tests.

1 / 1 punto

☒ False

☐ True



Correcto

Correct! The main file must be saved to keep it updated but it is not required to be executed. We have to import it into our testing file.

15. What will be the output of the code below:

1 / 1 punto

```
1 class A:
2     def a(self):
```

```
3         return "Function inside A"
4
5     class B:
6         def a(self):
7             return "Function inside B"
8
9     class C:
10         pass
11
12     class D(C, A, B):
13         pass
14
15     d = D()
16     print(d.a())
```

- ☐ Function inside B
- ☐ No output
- ☒ Function inside A
- ☐ None of the above



Correcto

Correct! The class A comes before class B in terms of the parent classes of class D.