Quiz 9

1. Which of the following programming paradigms are supported by Python? (Multiple choices)

A. Procedural paradigm

B. Object-oriented programing

C. Functional programming

1. Functional programming uses \_\_\_\_\_\_\_\_ as the fundamental building blocks:

A. Classes

B. Objects

C. Functions

1. Functional programming does not treat functions as objects:

A. True

B. False

1. In functional programming, functions can be (Multiple choices):

A. Stored in variables

B. Passed into other functions as parameters

C. Returned from other functions as a result

1. Higher-order functions are functions that operate on functions?

A. True

B. False

1. How are lambda functions useful? Select all that apply (Multiple choices):

A. Lambda functions are used for functional programming.

B. They can be useful as quick, throwaway single line functions.

C. They are useful in allowing quick calculations or processing as the input to other functions.

D. Lambda functions always make code easier to read.

1. What is the output of the following code snippet?

func = lambda x: return x

print(func(2))

A. 0

B. x

C. 2

D. SyntaxError

E. 2.0

1. What are the common functional programming methods that use lambdas? Select all that apply (Multiple choices):

A. reduce()

B. map()

C. filter()

1. What would be the output of the following code snippet?

(lambda x: (x + 3) \* 5 / 2)(3)

A. 15.0

B. 30.0

C. SyntaxError

D. 0

1. Consider the following list as an input (Multiple choices):

numbers = [1, 2, 3]

map() allows you to apply a function to every item of an iterable. Can you figure out how many of the following programs won’t have an error?

A. map(lambda x: x, numbers) => map object

B. list(map(lambda x: x, Numbers))

C. list(map(lambda x: x, numbers)) => [1, 2, 3]

D. list(map(lambda x: x % 2 == 0, numbers)) => [2]

1. Consider the following list as an input:

from functools import reduce

numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9]

res = reduce(lambda x, y: x + y if x % 2 == 0 else x - y, numbers)

print(res)

A. 3

B. 6

C. 9

D. SyntaxError

1. Consider the following list as an input (Multiple choices):

numbers = [1, 2, 3]

Which of the following would produce the result: [2]

A. list(filter(lambda x: (x + 1) \* 3 / 3 % 3 == 0, numbers))

B. list(filter(lambda x: x % 2 == 0, numbers))

C. list(filter(lambda x: x > 1, numbers))

D. list(filter(lambda x: 2, numbers))