

## L1

1) Which of the following is NOT a python data type?

- A. int
- B. float
- C. char
- D. bool
- E. str

2) What is the correct way to declare a variable in Python?

- A. var x = 10
- B. x = 10
- C. x := 10
- D. set x = 10
- E. declare x = 10

3) Which one is not true about Python?

- A. Variable names are not case-sensitive
- B. String variables can be declared either by using single or double quotes
- C. Boolean represent one of two values: True or False
- D. Variables are containers for storing data values
- E. Comments can be used to prevent execution when testing code

4) What is the output of the following code?

```
x = 5
y = 2
result = x // y
print(result)
```

- A. 2.5
- B. 2
- C. 3
- D. 7
- E. 10

## L2

5) What is the output of this set union operation?

```
set_a = {1, 2, 3}
set_b = {3, 4, 5}
set_c = set_a.union(set_b)
print(set_c)
```

- A. {1, 2, 3, 3, 4, 5}
- B. {1, 2}
- C. {1, 2, 3, 4, 5}
- D. {3}
- E. None of the above

6) What is the purpose of the return statement in a function?

- A. To return a value from the function to the caller
- B. To terminate the function
- C. To specify the data type of the function output
- D. To print the output of the function
- E. To specify the input of the function

7) When the else block in the while-else construct is executed

- A. Program ends.
- B. When break is executed
- C. When error is occurred
- D. When while statement becomes false
- E. Each time continue is executed.

8) Which of the following is an example of a python list?

- A. (1, 2, 3)
- B. {1, 2, 3}
- C. [1, 2, 3]
- D. {1: 'one', 2: 'two', 3: 'three'}
- E. '1, 2, 3'

### L3

9) Which Python feature allows you to create small, anonymous functions?

- A. Python Lambda
- B. Python Classes
- C. Python Inheritance
- D. Python Functions
- E. Python Decorators

10) What is the primary purpose of the init method in a class?

- A. To initialize class attributes
- B. To define class methods
- C. To create class objects
- D. To perform calculations
- E. To define class properties

11) What is the purpose of using a lambda function with map in Python?

- A. To convert a list of elements into a dictionary
- B. To filter elements in a list based on a condition.
- C. To apply a function to each element in a list and return a new list.
- D. To reduce a list of elements to a single value
- E. To perform mathematical operations on a list of elements and return a single value

12) What is possible return type of function

- A. None
- B. list
- C. function
- D. float
- E. all the above

## L4

13) Which of the following statements is true regarding generators?

- A. Generators can only be used with the for loop.
- B. Generators can be created using the yield keyword.
- C. Generators can only be used to generate numbers.
- D. Generators are used to create infinite loops.
- E. Generators cannot be used to iterate over a collection.

14) What is the purpose of Python iterators?

- A. To define reusable code with attributes and methods
- B. To generate small, anonymous functions
- C. To provide a way to loop over a collection of items
- D. To handle date and time information
- E. To perform mathematical calculations

15) What can JSON do in Python?

- A. Exchange and store data
- B. Clear a dataset.
- C. Access and change types
- D. Manage data types.
- E. Visualize an upcoming request.

16) What is the primary purpose of the "global" keyword?

- A. To define a local variable
- B. To define a global variable
- C. To access a global variable from within a function
- D. To define a new function
- E. To import a module

## L5

17) Which method is used to find all occurrences of a pattern in a string using regular expressions in Python?

- A. `match()`
- B. `search()`
- C. `find()`
- D. `findall()`
- E. All the above

18) Which of the following regex symbols check finite number of characters

- A. `?`
- B. `{5:}`
- C. `+`
- D. `*`
- E. `{0:}`

19) Which method in python's regex module is used to match a pattern at the start of a string?

- A. `match()`
- B. `search()`
- C. `findall()`
- D. `sub()`
- E. `split()`

20) In Python regular expressions, what do metacharacters represent?

- A. Special characters that match literal characters
- B. Characters that are used for string formatting
- C. Characters that match any digit
- D. Characters that match any whitespace character
- E. Characters that have special meaning and are used to define the pattern