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?

```python
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