

Day-2 Quiz-DataScience-Training

Welcome to the Python Programming Quiz! This quiz tests your knowledge of Python, focusing on collection objects, functions, modules, libraries, and oops. Please read the instructions carefully before starting the quiz.

Instructions and Rules

- **Time Limit:** You have 20 minutes to complete the quiz.
- **Number of Questions:** The quiz consists of 20 multiple-choice questions.
- **Scoring:** Each correct answer is worth 1 point. There is no negative marking for incorrect answers.
- **Single Attempt:** You are allowed only one attempt to complete the quiz.
- **Required Fields:** All questions are mandatory. You must answer each question to submit the quiz.
- **Resources:** This is a closed-book quiz. Do not use any external resources, including books, notes, or the internet.
- **Honesty:** Please answer the questions honestly and to the best of your ability. Cheating or dishonesty will result in disqualification.
- **Environment:** Ensure you are in a quiet environment where you can concentrate without interruptions.
- **Technical Issues:** In case of technical issues, please contact the quiz administrator immediately.
- **Retakes:** There are no retake opportunities for this quiz. Ensure you are prepared before starting.

Good luck, and do your best!

The respondent's email (himanshi.bca23@satyug.edu.in) was recorded on submission of this form.

1. Which of the following is not a mutable data type in Python? *

1 point

- ☐ a) List
- ☐ b) Dictionary
- ☒ c) Tuple
- ☐ d) Set

2. What is the output of the following code? *

1 point

```
fruits = ["apple", "banana", "cherry"]  
fruits.append("orange")  
print(fruits)
```

- ☐ a) ['apple', 'banana']
- ☒ b) ['apple', 'banana', 'cherry', 'orange']
- ☐ c) ['apple', 'banana', 'cherry']
- ☐ d) ['apple', 'banana', 'cherry', 'grape']

3. What is the difference between a list and a tuple in Python? *

1 point

- ☐ a) Lists are immutable, while tuples are mutable.
- ☒ b) Lists are mutable, while tuples are immutable.
- ☐ c) Lists can only contain integers, while tuples can contain any data type.
- ☐ d) Lists are faster than tuples.

4. What is the output of the following code? *

1 point

```
fruits = ["apple", "banana", "cherry"]  
fruits[1:3] = ["blackberry", "raspberry"]  
print(fruits)
```

- ☒ a) ['apple', 'blackberry', 'raspberry']
- ☐ b) ['apple', 'banana', 'raspberry']
- ☐ c) ['apple', 'blackberry', 'cherry']
- ☐ d) ['apple', 'blackberry', 'raspberry', 'cherry']

5. How can you remove a key-value pair from a dictionary? *

1 point

- ☐ a) `del dict[key]`
- ☐ b) `dict.remove(key)`
- ☐ c) `dict.pop(key)`
- ☒ d) Both a and c

6. What is the output of the following code? *

1 point

```
def func(x, y=5):  
    return x + y  
  
result = func(3)  
print(result)
```

- ☒ a) 8
- ☐ b) 5
- ☐ c) 3
- ☐ d) None

7. Which of the following is not a valid Python function name? *

1 point

- ☐ a) my_function
- ☐ b) func2
- ☒ c) 2func
- ☐ d) func_two

8. What is the purpose of the return statement in a function? *

1 point

- ☐ a) To print the result of the function
- ☒ b) To end the function and return a value to the caller
- ☐ c) To define a function
- ☐ d) To call another function

9. Which of the following is true about functions in Python? *

1 point

- ☒ a) Functions can return multiple values.
- ☐ b) Functions can be called before they are defined.
- ☐ c) Functions cannot have default arguments.
- ☐ d) Functions can be defined inside other functions.

10. What is the output of the following code? *

1 point

```
def my_func(a, b=2, c=3):  
    return a + b + c
```

```
result = my_func(1, c=4)  
print(result)
```

- ☐ a) 6
- ☒ b) 7
- ☐ c) 8
- ☐ d) 9

11. Which of the following is a correct way to import a module in Python? *

1 point

- ☒ a) import math
- ☐ b) import math.py
- ☐ c) import module math
- ☐ d) import(math)

12. How do you import only the pi constant from the math module? *

1 point

- ☐ a) import pi from math
- ☒ b) from math import pi
- ☐ c) import math.pi
- ☐ d) from math import *

13. What is the purpose of the os module in Python? *

1 point

- ☐ a) To perform mathematical operations
- ☒ b) To interact with the operating system
- ☐ c) To handle HTTP requests
- ☐ d) To work with regular expressions

14. Which function is used to list all functions and variables in a module? *

1 point

- ☐ a) list()
- ☒ b) dir()
- ☐ c) show()
- ☐ d) display()

15. What is the main purpose of the matplotlib library? *

1 point

- ☐ a) Data manipulation
- ☒ b) Data visualization
- ☐ c) Numerical computations
- ☐ d) Machine learning

16. What is the output of the following code? *

1 point

```
class MyClass:
    def __init__(self, value):
        self.value = value

obj = MyClass(10)
print(obj.value)
```

- ☒ a) 10
- ☐ b) None
- ☐ c) 0
- ☐ d) Error

17. What is inheritance in OOP? *

1 point

- ☒ a) A way to create new classes from existing ones
- ☐ b) A way to create functions
- ☐ c) A way to create variables
- ☐ d) A way to define a loop

18. What will be the output of the following code? *

1 point

```
class A:
    def display(self):
        print("A display")

class B(A):
    def display(self):
        print("B display")

obj = B()
obj.display()
```

- ☐ a) A display
- ☒ b) B display
- ☐ c) Error
- ☐ d) None

19. What is encapsulation in OOP? *

1 point

- ☒ a) Binding data and methods into a single unit
- ☐ b) Hiding the implementation details
- ☐ c) Deriving new classes from existing ones
- ☐ d) Defining functions

20. What is polymorphism in OOP? *

1 point

- ☒ a) The ability to take many forms
- ☐ b) The concept of inheritance
- ☐ c) The concept of encapsulation
- ☐ d) The concept of abstraction

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