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!

* Indicates required question

1. Email *

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

Mark only one oval.

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

3. **2. What is the output of the following code?** * 1 point

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

Mark only one oval.

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

4. **3. What is the difference between a list and a tuple in Python?** * 1 point

Mark only one oval.

- 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.

5. **4. What is the output of the following code?** * 1 point

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

Mark only one oval.

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

6. **5. How can you remove a key-value pair from a dictionary?** * 1 point

Mark only one oval.

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

7. **6. What is the output of the following code?** * 1 point

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

result = func(3)
print(result)
```

Mark only one oval.

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

8. **7. Which of the following is not a valid Python function name?** * 1 point

Mark only one oval.

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

9. **8. What is the purpose of the return statement in a function?** * 1 point

Mark only one oval.

- 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

10. **9. Which of the following is true about functions in Python?** * 1 point

Mark only one oval.

- 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.

11. **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)
```

Mark only one oval.

- a) 6
- b) 7
- c) 8
- d) 9

12. **11. Which of the following is a correct way to import a module in Python?** * 1 point

Mark only one oval.

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

13. **12. How do you import only the pi constant from the math module?** * 1 point

Mark only one oval.

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

14. **13. What is the purpose of the os module in Python?** * 1 point

Mark only one oval.

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

15. **14. Which function is used to list all functions and variables in a module?** * 1 point

Mark only one oval.

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

16. **15. What is the main purpose of the matplotlib library?** * 1 point

Mark only one oval.

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

17. **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)
```

Mark only one oval.

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

18. **17. What is inheritance in OOP?** * 1 point

Mark only one oval.

- 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

19. **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()
```

Mark only one oval.

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

20. **19. What is encapsulation in OOP?** * 1 point

Mark only one oval.

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

21. **20. What is polymorphism in OOP?** * 1 point

Mark only one oval.

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