Python Coding Test – Basic Level

Time: 1 Hour

Instructions: Attempt all questions. Write the code for each. No need to import any library unless mentioned.

# Data Types (2 Questions)

1. 1. Print the data type of each value.  
    values = [10, 5.5, 'hello', True]
2. 2. Check if each item is an integer. Print “Yes” or “No”.  
    items = [3, '4', 7.2, 0, -1]

# List (2 Questions)

1. 3. Add number 6 to this list and print the list.  
    numbers = [1, 2, 3, 4, 5]
2. 4. Print the last item of the list.  
    names = ['apple', 'banana', 'cherry', 'date']

# Dictionary (2 Questions)

1. 5. Print the value of key 'age' from this dictionary.  
    person = {'name': 'John', 'age': 25}
2. 6. Add a new key 'city' with value 'Delhi' and print the updated dictionary.  
    student = {'name': 'Anu', 'class': 5}

# Tuple (2 Questions)

1. 7. Print the second item in the tuple.  
    t = (100, 200, 300)
2. 8. Create a tuple with the numbers 1, 2, and 3 and print it.

# Set (2 Questions)

1. 9. Create a set from this list to remove duplicates and print it.  
    values = [1, 2, 2, 3, 3, 3]
2. 10. Add number 7 to the set and print it.  
    s = {1, 2, 3}

# If-Else (2 Questions)

1. 11. Check if the number is even or odd and print the result.  
    number = 8
2. 12. Check if the number is greater than 10 and print “Yes” or “No”.  
    n = 15

# For Loop (2 Questions)

1. 13. Print numbers from 1 to 5 using a for loop.
2. 14. Print each name in the list using a for loop.  
    names = ['John', 'Jane', 'Jim']

# While Loop (2 Questions)

1. 15. Print numbers from 1 to 5 using a while loop.
2. 16. Print each number from the list using a while loop.  
    nums = [10, 20, 30]

# Function (2 Questions)

1. 17. Write a function to print “Hello”. Call the function.
2. 18. Write a function that takes a number and returns double the number. Call the function with number 5.

# List Comprehension (1 Question)

1. 19. Create a new list with squares of numbers from 1 to 5. Use list comprehension.

# Try & Except (1 Question)

1. 20. Divide two numbers and handle the divide-by-zero error.  
    a = 10  
    b = 0

# OOPs Basics (3 Questions)

1. 21. Create a class Person with a variable name. Create an object and print the name.
2. 22. Add a method say\_hello() to the class that prints “Hello!”. Call this method.
3. 23. Create a class Animal, and a class Dog that inherits from Animal. In both, print different messages. Call both.

# Regression (2 Questions – Basic Use Only)

1. 24. Write a list of inputs and outputs to train a simple linear model manually.  
    Example: x = [1, 2, 3], y = [2, 4, 6]
2. 25. Just import LinearRegression from sklearn. Print a message 'Model imported successfully'.