**Introduction to Python**

**Q.1 Print hello world.**

**Code:**

print("Hello, World!")

**Output:**

Hello, World!

**Explanation:**

1. **print()**: A built-in function to display output in the console.

2. **"Hello, World!"**: A string, enclosed in double quotes, that is passed to the print() function.

Q.2 Describe local variable and global variable code.

**Local Variable**

A local variable is defined inside a function and can only be accessed within that function. It is created when the function is called and destroyed when the function ends.

**Global Variable**

A global variable is defined outside any function and can be accessed and modified both inside and outside functions.

Q.3 Write a code that describe Indentation error.

Indentation refers to the spaces or tabs at the beginning of a code line in Python. Proper indentation is mandatory in Python to define blocks of code. If the indentation is inconsistent or missing, Python raises an Indentation Error.

**Code:**

def example\_function():

print("This line is not properly indented") # Missing indentation

print("This line is fine") # Properly indented

**Output:**

IndentationError: expected an indented block

Q.4 Write a code that describe local and global variable with same name.

**Code:**

# Global variable with the name 'var'

var = "I am a global variable"

def example\_function():

# Local variable with the same name 'var'

var = "I am a local variable"

print("Inside the function:", var) # Accessing the local variable

# Calling the function

example\_function()

# Accessing the global variable outside the function

print("Outside the function:", var)

**Output:**

Inside the function: I am a local variable

Outside the function: I am a global variable

**Explanation:**

1. A local variable with the same name as a global variable takes precedence within its function.

2. The global keyword is required to modify a global variable inside a function.

Q.5 Write a code for string, int and float input.

**Code:**

# Accepting a string input

name = input("Enter your name: ")

# Accepting an integer input

age = int(input("Enter your age: "))

# Accepting a float input

height = float(input("Enter your height : "))

# Displaying the inputs

print("\n--- Input Details ---")

print(f"Name: {name}") # String

print(f"Age: {age}") # Integer

print(f"Height: {height}") # Float

**Input:**

Enter your name: Shruti

Enter your age: 21

Enter your height: 5’2

**Output:**

--- Input Details ---

Name: Shruti

Age: 21

Height: 5’2

**Explanation:**

1. **input()**: Accepts user input as a string by default.

2. **int()**: Converts the input to an integer.

3. **float()**: Converts the input to a floating-point number.

4. Always handle invalid inputs using error handling techniques like try-except to avoid crashes.