**Assignment 1**

* For each code snippet below Identify Error, Rewrite and Explain code.

1. def add\_num(a,b)

    return a+b

print(add\_num(5,10))

**Identify :** In this code the SyntaxError: expected ':' error is accure.

**Rewrite :** def add\_num(a,b):

    return a+b

print(add\_num(5,10))

**Explain :** The code works for to perform addition of two number using add\_num() function that has two argument. The error is arise because of (:) colon. That is use to define the next code is in indentation.

1. name= 'Alice

print("Hello, "+name)

**Identify :** Missing Closing Quote in name= 'Alice

**Rewrite :** name= 'Alice'

print("Hello, "+name)

**Explain :** String literals in Python must begin and end with the same quote character. By adding the missing (‘) after Alice, the code compiles. Then string concatenation with + produces the output Hello, Alice.

1. for i in range(5):

print("Number:", i)

**Identify :** No Error

**Rewrite :** Same Code

**Explain :** In the given code we print number from 0 to 4 using for loop.

Number: 0

Number: 1

Number: 2

Number: 3

Number: 4

1. my\_list = [1, 2, 3, 4, 5]

print("The fifth element is: " + my\_list[5])

**Identify :** IndexError: list index out of range

**Rewrite :** my\_list = [1, 2, 3, 4, 5]

print("The fifth element is: " + str(my\_list[4]))

**Explain :** Lists in Python use 0-based indexing, so the fifth element is at index 4, not 5. Also, concatenating an integer directly to a string causes a type error, so str() is used for conversion.

1. def greet(name):

    print("Hello " + name)

greet("Bob")

**Identify :** No Error

**Rewrite :** Same Code

**Explain :** The function is properly defined and called with "Bob" as the argument. It prints the greeting as intended.

1. age = input("Enter your age: ")

if age >= 18:

    print("You are eligible to vote.")

else:

    print("You are not eligible to vote.")

**Identify** : **Error:** TypeError: '>=' not supported between instances of 'str' and 'int'

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

if age >= 18:

    print("You are eligible to vote.")

else:

    print("You are not eligible to vote.")

**Explain :** The input() function returns a string, so you must convert it to an integer with int() before comparing it to 18.

1. def multiply(a, b):

    result = a \* b

  return result

print(multiply(4, 5))

**Identify :** No Error

**Rewrite :** Same Code

**Explain :** This function multiplies two numbers and returns the result, which is q correctly printed.

1. count = 10

while count > 0

    print(count)

    count -= 1

print("Countdown complete!")

**Identify :** SyntaxError: expected ':'

**Rewrite :** count = 10

while count > 0:

    print(count)

    count -= 1

print("Countdown complete!")

**Explain :** while count > 0: keeps looping as long as count remains positive.