**NAME: ARIBA RAZA**

**REGISTRATION: SP23-BST-008**

**FINAL EXAM**

**Q NO.1 (a)**

**Ans:** == is used for comparison it compares two values and give answer in form or true and false

= Is an assignment operator it assigns that value at the right to the left side variable

**Q NO.1 (b)**

**Ans:** The range() function can also take two or three arguments. The two-argument form is range(start, stop) where start is the starting number and stop is the ending number. It is used in for loop to set the range increment and decrement in loop. It helps in how much times we have to iterate the loop.

**Q NO.1 (c)**

**Ans:** In Python, we define a function using the def keyword followed by the function name and parameters in parentheses.

**EXP:**

def function\_name(parameters):

### function code

return value

It has the following parts:

* def
* function name
* parameter
* function code
* return value

**Q NO.1 (d)**

**Ans:**

* Enhance Code Readability
* Explain Code to Others
* Understanding Code Later
* Documenting Code
* Sharing Code with Others
* Collaborating with Multiple People

**Q NO.1 (e)**

**Ans:** The major difference between tuples and lists is that while the tuples are immutable objects, lists are mutable. This means that tuples cannot be changed while lists can be modified .As a result, tuples are more memory efficient than lists. If you have data that shouldn’t change, you should choose tuple data type over lists.

**Q NO.2 (a):**

**ANS:**

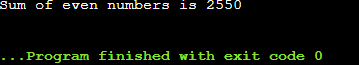
sum = 0

for x in range(1, 101):

if x % 2 == 0:

sum = sum + x

print("Sum of even numbers is", sum)



**Q NO.2(b):**

**ANS:**

def factorial(n):

if n < 0:

return 0

elif n == 0 or n == 1:

return 1

else:

fact = 1

while(n > 1):

fact \*= n

n -= 1

return fact

num = int(input("Enter the number : "))

print("Factorial of", num, "is", factorial(num))

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**Q NO.3:**

**ANS:**

def add(num1, num2):

return num1 + num2

def subtract(num1, num2):

return num1 - num2

def multiply(num1, num2):

return num1 \* num2

def divide(num1, num2):

if num2 != 0:

return num1 / num2

else:

return "Error"

num1 = float(input("Enter first number: "))

operator = input("Enter operator (+, -, \*, /): ")

num2 = float(input("Enter second number: "))

if operator == "+":

print(add(num1, num2))

elif operator == "-":

print(subtract(num1, num2))

elif operator == "\*":

print(multiply(num1, num2))

elif operator == "/":

print(divide(num1, num2))

else:

print("Invalid operator. Please enter +, -, \*, or /.")

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