

Date :

Page No. :

27/11/25
Thursday

Chapter = 9

Loops In Python

Gr. Competency - based

1. Ajay is creating _____ achieve this.

Number guessing activities

While True

 number = int(input("Enter a positive number."))

 if number > 100:

 print("Number greater than 100 entered. Exiting the program.")

 break # exit the loop

 else:

 print("Try again! Enter the number greater than 100 to stop.")

2. You are designing _____ by 3.

For num in range(1, 11):

 if num % 3 == 0:

 Continue

 print(num)

In the Lab

1. Calculate the sum of the first N natural number using a for loop.

```
# Get input from the user  
n = int(input("Enter a positive integer:"))
```

```
# Initialize Sum  
total = 0
```

```
# Calculate sum using a for loop  
for num in range(1, n+1):  
    total += num
```

```
print("The sum of the first  $\{n\}$  natural  
number is:  $\{total\}$ ")
```

2. Print the multiplication table of a number entered by the user using a while loop.

```
num = int(input("Enter a number"))
```

```
i = 1
```

```
while i <= 10
```

```
    print(f"{num} x {i} = {num * i}")
```

```
    i += 1
```

3. Runs an ~~inf~~ infinite loop, asking the user to enter a number, and break the loop if the number is negative.

While True :

num = int(input("Enter a number (enter a negative number to stop): "))

if num < 0

print("Negative number entered")
break

4. Prints all odd numbers from 1 to 10 using a for loop and the continue statement.

for num in range(1, 11):

if num % 2 == 0;

continue

print(num)

5. Calculate the factorial of a number entered by the user using a while loop.

Date :

Page No. :

```
num = int(input("Enter a number"))  
factorial = 1
```

```
    i = num
```

```
    while i > 0
```

```
        factorial *= i
```

```
        i -= 1
```

```
print("Factorial of {num} is {fact}")
```