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**DEPARTMENT : INFORMATION TECHNOLOGY**  
**SUBJECT : ARTIFICIAL TECHNOLOGY**

## Python looping tasks:

### Task:1

Print numbers from 1 to 10 using a for loop

```
for i in range(1, 11):  
    print(i)
```

### OUTPUT

```
1  
2  
3  
4  
5  
6  
7  
8  
9  
10
```

```
=== Code Execution Successful ===
```

## TASK:2

Print all even numbers between 1 and 20 using a loop

```
i = 2
while i <= 20:
    print(i)
    i += 2
```

## OUTPUT

```
2
4
6
8
10
12
14
16
18
20

=== Code Execution Successful ===
```

## TASK:3

Calculate the sum of numbers from 1 to 100 using a loop

```
total = 0
for i in range(1, 101):
    total += i

print("Sum from 1 to 100 is:", total)
```

## OUTPUT

```
Sum from 1 to 100 is: 5050
```

```
=== Code Execution Successful ===
```

## TASK:4

Print the multiplication table of 5 using a loop

```
num = 5
for i in range(1, 11):
    print(f"{num} x {i} = {num * i}")
```

## OUTPUT

```
5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
5 x 5 = 25
5 x 6 = 30
5 x 7 = 35
5 x 8 = 40
5 x 9 = 45
5 x 10 = 50
```

```
=== Code Execution Successful ===
```

## TASK:5

Find the factorial of a given number using a for loop

```
num = int(input("Enter a number: "))  
factorial = 1  
  
for i in range(1, num + 1):  
    factorial *= i  
  
print(f"Factorial of {num} is {factorial}")
```

## OUTPUT

```
Enter a number: 23  
Factorial of 23 is 25852016738884976640000  
  
=== Code Execution Successful ===
```

## TASK:6

Iterate over a list of fruits and print each item

```
fruits = ["apple", "banana", "cherry", "mango", "orange"]  
  
for fruit in fruits:  
    print(fruit)
```

## OUTPUT

```
apple  
banana  
cherry  
mango  
orange
```

```
=== Code Execution Successful ===
```

## TASK:7

Create a list of numbers and print only the odd numbers using a loop

```
numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]  
  
for num in numbers:  
    if num % 2 != 0:  
        print(num)
```

## OUTPUT

```
1  
3  
5  
7  
9
```

```
=== Code Execution Successful ===
```

