

### **Lab programs to be executed in the lab tomorrow:**

- Read these programs and come to the lab.
- We won't allow you to use the phone or copy the given programs in the lab.
- First write the programs in the observation, execute it and show the output to the respective faculty incharge.
- Get the signature in observation by faculty incharge for every lab.

#### **1. Write a program that asks the user how many Fibonacci numbers to generate and then generates them. Make sure to ask the user to enter the number of numbers in the sequence to generate.**

Program code:

```
# Ask the user for input
num = int(input("Enter the number of Fibonacci numbers to generate: "))

if num <= 0:
    print("Please enter a positive integer.")
else:
    first, second = 0, 1
    print("Fibonacci sequence:")
    for i in range(num):
        print(first, end=" ")
        #finding next term by adding first and second
        first, second = second, first + second
```

#### **2. Write a program that asks the user for a number and then prints out a list of all the divisors of that number.**

Program code:

```
# Ask the user for input
num = int(input("Enter a number: "))

print("Divisors of", num, "are:")
for i in range(1, num + 1):
    # Check if num is divisible by i
    if num % i == 0:
        print(i, end=" ")
```

#### **4. Write a program for checking whether the given number is even number or not.**

```
# Ask the user for input
num = int(input("Enter a number: "))
```

```
# Check if the number is even
if num % 2 == 0:
    print(num, "is an even number.")
else:
    print(num, "is not an even number.")
```