**Practical No: 14**

**Aim: Functions : Write a program to: To print Factors of a given Number.**

**Course Outcome: Develop/ Use functions in Python programs for modular programming approach.**

**Requirements: Computer, Python 3.3.34, Vs Code.**

**Theory:**

Factor of a number:

factor, in mathematics, a number or algebraic expression that divides another number or expression evenly—i.e., with no remainder. For example, 3 and 6 are factors of 12 because 12 ÷ 3 = 4 exactly and 12 ÷ 6 = 2 exactly. The other factors of 12 are 1, 2, 4, and 12.

**Flowchart:**

**Program:**

#Functions : Write a program to: To print Factors of a given Number.

def NumFact(Num):

    print("The Factors of ", Num,": ")

    for i in range(1 , Num+1):

        if Num%i==0:

            print(i,end=" ")

N = int(input("Enter the number to find the factor: "))

NumFact(N)

**Output/Result:**

**Enter the number to find the factor: 10**

**The Factors of 10 :**

**1 2 5 10**

**Enter the number to find the factor: 2250**

**The Factors of 2250 :**

**1 2 3 5 6 9 10 15 18 25 30 45 50 75 90 125 150 225 250 375 450 750 1125 2250**

**Conclusion:** In this program, the number whose factor is to be found is stored in num, which is passed to the print\_factors() function. This value is assigned to the variable x in print\_factors().

In the function, we use the for loop to iterate from i equal to x. If x is perfectly divisible by i, it's a factor of x.