Lab Manual

Practical and Skills Development

CERTIFICATE

THE ASSIGNMENT ENTERED IN THIS REPORT HAVE BEEN
SATISFACTORILY PERFORMED BY

Registration No   : 25BCY10120

Name of Student   : TULSI SHARMA

Course Name   : Introduction to Problem Solving and Programming

Course Code   : CSE1021

School Name   : SCAI

Slot   : B11+B12+B13

Class ID   : BL2025260100796

Semester   : FALL 2025/26

Course Faculty Name   : Dr. Hemraj S. Lamkuche

Signature:tulsi

Practical Index

S. No.	Title of Practical	Date of Submission	Signature of Faculty
1	To define a function called deficient(n) which checks wether the inputted number is greater than the sum of its divisors or not	2nd nov (sunday)	
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Practical No: 1

Date: _____2nd november_____

TITLE: Write a function is_deficient(n) that returns true if the sum of proper divisors of n is less than n

AIM/OBJECTIVE(s): To find a function which checks weather the inputted number is greater than the sum of its divisors or not.

METHODOLOGY & TOOL USED:

used for loop and focus on the range of n.

BRIEF DESCRIPTION:

checked first wether the inputted number is zero or negative or not, if it is negative printed false

then started the sum with zero and gave i a range for which n will work then if its correct sum stops there,otherwise it adds i in it,

and so on same process goes on.

RESULTS ACHIEVED: found a function without using already existing function which checks if the input is greater than or equal to its sum of divisors or not.

CODE:

```
def is_deficient(x):

    if x<= 0:

        print(False)

        return


    sum_of_divisors = 0

    for i in range(1,x):

        if x%i == 0:

            sum_of_divisors+= i


    if sum_of_divisors<x:

        print(True)

    else:

        print(False)

is_deficient(6)

is_deficient(4)  # 1,2   1+2=3, where 4>3(true is printed)
```

DIFFICULTY FACED BY STUDENT:Made mistake while taking the range of i and my code didnt worked for few hours then took help from my classmate.(Atharv)

CONCLUSION: We should focus on little things while writing code sometimes our logic is correct but we do silly mistakes.

Finally understood how i can write code to check if a number is greater than its sum of divisors or not.

Date: _____

TITLE:

AIM/OBJECTIVE(s):

METHODOLOGY & TOOL USED:

BRIEF DESCRIPTION:

RESULTS ACHIEVED:

DIFFICULTY FACED BY STUDENT:

CONCLUSION: