THADOMAL SHAHANI ENGINEERING COLLEGE

DEPARTMENT OF INFORMATION TECHNOLOGY

Roll no:I-12 **31/1/25**

1.Basics of Python: LO1

Aim:

1)Write a Python program to calculate the gross salary of an employee. The program should prompt the user for the basic salary (BS) and then compute the dearness allowance (DA) as 70% of BS, the travel allowance (TA) as 30% of BS, and the house rent allowance (HRA) as 10% of BS. Finally, it should calculate the gross salary as the sum of BS, DA, TA, and HRA and display the result.

Theory:

1. Gross salary includes basic salary and additional allowances like DA, TA, and HRA.
2. Dearness Allowance (DA) is typically calculated as a percentage of the basic salary.
3. Travel Allowance (TA) covers employee travel and is also a percentage of the basic.
4. House Rent Allowance (HRA) helps with housing costs and depends on basic pay.
5. All allowances are added to the basic salary to compute the gross salary.

Program:

```
bs = float(input("Enter Basic Salary (BS): "))

da = 0.70 * bs

ta = 0.30 * bs

hra = 0.10 * bs

gross_salary = bs + da + ta + hra

print("Gross Salary is: ₹", gross_salary)
```

Output:

Enter Basic Salary (BS): 20000

Gross Salary is: ₹ 26000.0

Conclusion:

The program successfully calculates the gross salary of an employee by accurately determining the dearness allowance, travel allowance, and house rent allowance based on the basic salary. It demonstrates the use of mathematical operations, user input, and formatted output in Python.

Aim :

2) Write a Python program to calculate the simple interest based on user input. The program should prompt the user to enter the principal amount, the rate of interest, and the time period in years. It should then compute the simple interest using the formula Simple Interest=(Principal×Rate×Time) /100 and display the result.

Theory:

1. Simple Interest (SI) is the extra money paid on a principal over time.
2. The formula for SI is: (Principal × Rate × Time) / 100.
3. The principal is the original sum of money loaned or invested.
4. The rate is the annual interest percentage.
5. The time is the duration in years the money is borrowed or invested for.

Program:

```
p = float(input("Enter Principal Amount: "))

r = float(input("Enter Rate of Interest: "))

t = float(input("Enter Time (in years): "))

si = (p * r * t) / 100

print("Simple Interest is: ₹", si)
```

Output :

Enter Principal Amount: 5000

Enter Rate of Interest: 5

Enter Time (in years): 2

Simple Interest is: ₹ 500.0

Conclusion:

This program accurately calculates simple interest using user inputs, making it useful for basic financial estimations and planning.