Date: 6-08-25

1. Running Python Script And Various expression is an interactive interpreter.

1.1 Karan spent ₹150 on books, ₹220 on groceries, and ₹90 on transport. Help him calculate the total expenses.

Aim: To write a Python Program that calculates the total amount spent by Karan on books, groceries, and transport.

Algorithm:

1. Start the Program
2. Accept the amount spent on books, groceries and transport
3. Calculate the total expenses by summing all three amounts
4. Display the total amount spent
5. End the Program.

Python Program :

Step1: Assign expenses.

books = 150

groceries = 220

transport = 90

Step2: Calculate total

total_expense = books + groceries + transport

Step3: Display the result

Print("total expenses incurred by Karan: ₹", total_expense)

Sample input :

Books = ₹150

Groceries = ₹220

Transport = ₹90

Sample output :

total expenses incurred by Karan : ₹460.

VEL TECH - CSE	
EX NO.	
PERFORMANCE (5)	
RESULT AND ANALYSIS (3)	
VIVA VOCE (3)	
RECORD (4)	
TOTAL (15)	
SIGN WITH DATE	

Result: thus total amount spent by Haran on books, groceries, and transport ~~are~~ proved.

Python Program:

step1: Get input from the user

```
weight = float(input("enter your weight in kilograms:"))
height = float(input("enter your height in meters:"))
```

step2: Calculate BMI

```
bmi - weight/(height ** 2)
```

step3: Display result

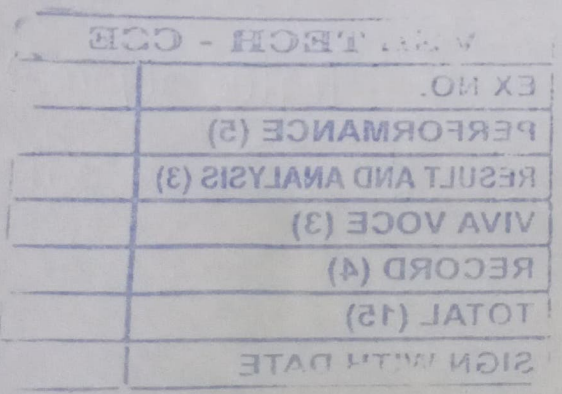
```
Printf("your Body mass Index(BMI) is:", round(bmi, 2))
```

Sample input:

Enter your weight in Kilograms: 70
Enter your height in meters: 1.75

Sample output:

your body mass Index (BMI) is: 22.86



1.2 Write a BMI Calculator. Ask the user for Weight (Kg) and height (m), then calculate and display their BMI

Aim: To write a Python Program that calculates and displays the body mass index (BMI) of a Person using their weight and height

Algorithm:

1. Start the Program
2. Prompt the user to input their weight in Kilogram
3. Prompt the user to input their height in meter
4. Calculate BmI

$$BmI = \frac{Weight}{height^3}$$

5. Display the Calculated BmI
6. End the Program

Result: Thus the body mass index of a Person using their weight (Kg) & heights (m) are ~~Solved~~.

Python Program:

step1: Assign side lengths

a=8
b=6
c=4

step2: Calculate semi-perimeter

s= (a+b+c)/2

step3: Apply Heron's formula

area = math.sqrt (s*(s-a)*(s-b)*(s-c))

step4: Display result

Printf("the area of the triangle is", round(area, 2); "square cm")

Sample input:

a=8 cm
b=6 cm
c=4 cm

Sample output:

the area of the triangle is: 11.62 square cm

1.3 Laya wants to calculate the area of a scalene triangle with sides of length 8cm, 6cm and 4cm Help her write a Python Program that computes the Area using Heron's formula.

Aim: To write a Python Program to find the area of a triangle when the lengths of all these sides are given using Heron's formula.

Algorithm:

1. Start the Program
2. Accept or assign the lengths of the three sides: a, b, and c
3. Calculate the Semi-Perimeter:

$$S = \frac{a+b+c}{2}$$

4. Heron's formula

$$\text{Area} = \sqrt{S(S-a)(S-b)(S-c)}$$

5. Display the area
6. End the Program.

V SL TECH - CSE	
EX NO.	1
PERFORMANCE (5)	5
RESULT AND ANALYSIS (3)	3
VIVA VOCE (3)	3
RECORD (4)	4
TOTAL (15)	15
SIGN WITH DATE	6/8

Result: Thus the area of triangle when the length of all three sides a length has ~~Proved~~.