**BASIC PROGRAMMING ASSIGNMENT\_2-SUBMITTED BY SAMUEL DEVDAS**

1.Write a Python program to convert kilometers to miles?

Ans. dist\_km= int(input('enter distance in kilometres:'))

dist\_mi= dist\_km\*0.6214

print('distance converted to miles, m=',dist\_mi)

2.Write a Python program to convert Celsius to Fahrenheit?

Ans. tempc= int(input('enter temperature in °C:'))

tempf=(tempc\*9/5) + 32

print('temperature converted to °F:',tempf)

3.Write a Python program to display calendar?

Ans. import calendar

year=int(input('enter the year,(eg.2001):'))

month=int(input('enter the month,(eg.12):'))

cal=calendar.month(year,month)

print(cal)

4.Write a Python program to solve quadratic equation?

Ans. #With Complex roots

import cmath

a =int(input("enter 'coefficient a' from the quadratic equatic equatic of the form:ax\*\*2+bx+c :"))

b =int(input("enter 'coefficient b' from the quadratic equatic equatic of the form:ax\*\*2+bx+c :"))

c =int(input("enter 'coefficient c' from the quadratic equatic equatic of the form:ax\*\*2+bx+c :"))

d=b\*\*2-4\*a\*c

x1=-b+(cmath.sqrt(d))/2\*a

x2=-b-(cmath.sqrt(d))/2\*a

print('the roots of the equation are', x1 , x2)

#Without complex roots

import math

a =int(input("enter 'coefficient a' from the quadratic equatic equatic of the form:ax\*\*2+bx+c :"))

b =int(input("enter 'coefficient b' from the quadratic equatic equatic of the form:ax\*\*2+bx+c :"))

c =int(input("enter 'coefficient c' from the quadratic equatic equatic of the form:ax\*\*2+bx+c :"))

d=b\*\*2-4\*a\*c

try:

x1=-b+(math.sqrt(d))/2\*a

x2=-b-(math.sqrt(d))/2\*a

except Exception as e:

print('For Discriminant d<0,the roots do not exist or are imaginary,retry using other coefficients:',e)

else:

print('the roots of the equation are', x1 , x2)

5.Write a Python program to swap two variables without temp variable?

Ans.

a = 5

b = 10

a, b = b, a

print("a =", a)

print("b =", b)