Task: 5:- Importing python modules and packages in python programming.

Aim: -

To write python demonstring important pathon modules and packages.

as you are tacked with developing a molecular calculator application in Python. The calculator should support besic arithmetic operation: addition, subtraction, multiplication, and division. Each opercution should be implemented in a separete module. Additionally, you should create a main program to handle user input, call the appropriate module, and display the results.

Algorithm:

- 1. Define forctions for addition, substraction, multiplication and division.
- 2 Handle division by zero by raising an error if the divisor is zero
- 3. Import the module (mymath) containing these functions.
- a Initialize two numbers (a=10, b=5)
- 5. Call each firetion using mymath & firetion-name; (a16).
- 6. Point the result of all operation.

05toti a alchow retter probagat primaryet religion in Addition: 15 subtractions 5 Multiplication: 50 similar and mologies Division: 20 wow are today with developing a whole similar or netrostors retained Hibbo well-rope standing stud tropped blook subtraction, multiplication, and division buck ones strange in in betweend puri and blooks with are in them I look my , julo mit ibish . I about program to houndle war import, call the or margore 2 Hope of public bree , glabon a before forthous to addition, sobotened anded ! It works division by zers by ruising on snow it 2103 zi rozivio alt I Import of medice (mynight) ordinary they (... d (a . .) 21 d men out silvidial it Since the time way myouth a death of the without the result of our of the

```
Program:
def add (a,b):
  retorn atb
def subctraction (a, b):
  reform a-b
def multiply (a, 5):
   retrn axb
def divide (arb)
   if b == 0:
     raise value Error ("connot divide by zero")
   retorn alb
import mymath
a: 10
5= 5
print ("Addition:", my &moth-add (a,b))
print ("subtraction:", mymosthe subtraction (a, 5))
print ("Meltiplication:", my moth, multiply (arb))
print ("Division: ", my moth. divide (a.5)).
```

b. You are working on a Python project that requires you to porform various mathematical operations and geometric area calculations. To organize your code bother, you decide to create a package mypackage with include sub packages pack 1 and pack 2 with two modules: morth-functions and print and area-brothons Demonstrate the use of the functions by performing a few calculations and print functions by performing a few calculations and print functions by performing a few calculations.

Algorithm:

1. Create moth Ructions. Py module.

2. Create area-Enctions. Py module.

3. Create-init-py files in pack 1 and pack 2:

e. Create main.py:

5. Print the output as expected!

Program: 1. Create the matheurctions. Py module.

def add (a, b):

neturn atb

def subtract (a, b):

return a-b

def multiply (a, b):

return at b

det divide (a1b):

if b== 0:

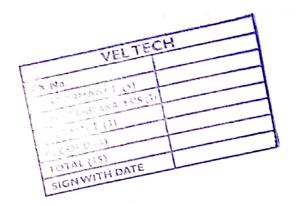
return "Error! Division by zera". return alb

2. Create the areabnotions.py module import moth def circle-area (radius):

you exe working on a tight on any Output Addition: 15 a miner without it was entired Subtraction: 5 give rung principus Moltiplication: 50 this yearlangur speil up Division: 20 Circle Area (radius=7):153.93804002589905 Rectangle Area (576):50 Rectangle Area (576):50
Triangle Area (base=6, height=8): 24.0. 1. Create math Enothons. Py risodule subon or extendions of module. school ind-by the in part and part? Wichell HOIN. M. became so trate with the · dabon preschoot of tiene. (d. 0) bbo lab dto nuty (d.o) + softe tob do maker (6.0) plate was to dto moral (810) shirts the when I would bring to some Treat the areal waters by market thon trapel : (eula,) como doño lab

return math. pit radus tradius def rectangle-area (length, width) return length & width def trioggle_area (base, height): retirn 0.5 " buse & height 3. Create-int-ipy in each package folder (packIR pack 2) from mathemations import add, subtract, multiply. divide from area functions import circle area, restanglearea, triangle_area. 4. Create the mainipy file from pack import mathfunctions. from pack import areaforations # using math-factions print ("Addition", mother crions add (10,5)) print ("Substraction: ", motheraction-subtract (10,5)) print ("Mestiplication: ", mathemation orthon multiply (10,5)) print ("Division: 11, month-enotion. divide (10,5)) # Using area function. print ("Circle Area (radius = 7):", area-frontin circle -area (7)) Print ("Rectargle Area (5×10): ", area-Brothm. restargle farea (5,10)) print ("Triangle free (base: 6, height = 8): ", area Brothins

triangle_area (0,8))



Result: Thus, the program for Importing Bython modules and packages was soccessfully exacted and the output was verified.