**Neha Waikar**

**PYTHON PROGRAMMING**

**DATE OF PERFORMANCE : 1/10/24**

PRACTICAL 6

* **Write a function to accept a string from user and display number of times character ‘a’ is there in the string.**

**Input:** def count(s):

print("no.of times a occurs:",s.count("a")) w=input("enter:") a=w.lower() count(a)

**Output:**



* **Given a list h= [5,6,7,8,9], write a python function which inputs the list as input and displays the product of all the elements of list.**

**Input:** def pro(s): a=1 for i in s: a\*=i print("product of all elements:",a) h=[5,6,7,8,9] pro(h)

**Output:**



* **Write user defined function to display string in reverse order and another function to display the string in upper and lower case.**

**Accept a string and pass it in 2 functions.**

**Input:** def rev(s):

print("in reverse order:",s[::-1]) def case1(s):

print("in uppercase:",s.upper()) print("in lowercase:",s.lower()) string=input("enter string:") rev(string) case1(string) **Output:**



**4. Write a program to demonstrate the use Positional Arguments,**

**Keyword Arguments and Default Arguments.**

**Input:**

def hi(name,age,country="india",greeting="hello"):

print(f"{greeting},{name}!") print(f"you are {age}year old and you are from{country}")

print("---positional arguments---") hi("neha",18) print("---keyword arguments---") hi(name="anvi",age=7,country="USA",greeting="hi") print("---Default arguments---") hi("rigvedi",12)

**Output:**



**5. Write a program to find the product of any number of arguments passed in to the function.(Use Variable Length Positional**

**Arguments)**

**Input:** def pro (\*s):

a=1 if s==():

print("empty") else:

for i in s: a\*=i print("product is:",a) pro(1,2,3,4,5) pro(2,5,6) pro()

**Output:**



* **Write an anonymous function to display the cube of the number accepted from the user.**

**Input:**

cube=lambda a:print("cube of",a,':',a\*\*3) n=int(input("enter:")) cube(n)

**Output:**



* **Write a recursive function to display the numbers from max to1.**

**Accept the number from user and pass it to the function.**

**Input:** def re(n): if n>0: print(n) re(n-1)

num=int(input("enter:")) re(num)

**Output:**



* **Given a f=[2,44,15,56], using the math module and find the product and sum.**

**Input:**

import math as m f=[2,44,15,56] print("sum:",m.fsum(f)) print("product:",m.prod(f))

**Output:**



* **Accept the radius from the user and display the circumference and area of the circle.**

**Input:**

import math as m r=float(input("radius:")) print("circumference:",2\*m.pi\*r) print("area:",m.pi\*r\*r)

**Output:**



* **Write a module for diff mathematical functions**

**(add,sub,mul,div,power) and use it for doing various mathematical**

**Operations.**

**Input:** def add(x,y): return x+y def sub(x,y): return x-y def mul(x,y): return x\*y def div(x,y): return x/y def power(x,y): return x\*\*y import math as m c='yes' while c.lower()=="yes":

a=int(input("enter no.1:")) b=int(input("enter no.2:")) ch=int(input("enter choice[1-5]:")) if ch==1:

print("addition:",m.add(a,b)) elif ch==2:

print("subtraction:",m.sub(a,b)) elif ch==3:

print("multipication:",m.mul(a,b)) elif ch==4: if b<=0:

print("error") else:

print("division:",m.div(a,b)) else:

print("power:",m.power(a,b)) c=input("do you want to continue[yes/no]:")

**Output:**

