**BASIC PROGRAMMING ASSIGNMENT\_5-SUBMITTED BY SAMUEL DEVDAS**

1. Write a Python Program to Find LCM?

Ans. a=int(input('enter any positive integer,a:'))

b=int(input('enter any positive integer,b:'))

print('a=',a,'b=',b)

amul=[]

for i in range(1,2\*max(a,b)):

amul.append(a\*i)

bmul=[]

for i in range(1,2\*max(a,b)):

bmul.append(b\*i)

cmul=[]

for i in amul:

if i in (amul and bmul):

cmul.append(i)

print('Common Multiples of a and b:',cmul)

print('LCM,Least Common Multiple of a and b is',min(cmul))

2. Write a Python Program to Find HCF?

Ans. a=int(input('enter any positive integer,a:'))

b=int(input('enter any positive integer,b:'))

print('a=',a,'b=',b)

afact=[]

for numbers in range(1,a+1):

if a%numbers==0:

afact.append(numbers)

print('afact=',afact)

bfact=[]

for numbers in range(1,b+1):

if b%numbers==0:

bfact.append(numbers)

print('bfact=',bfact)

cfact=[]

for i in afact:

if i in (afact and bfact):

cfact.append(i)

print('Common factors of a and b=',cfact)

print('HCF,highest common factor of a and b is',max(cfact))

3. Write a Python Program to Convert Decimal to Binary, Octal and Hexadecimal?

Ans.

class convert:

def \_\_init\_\_(self,num):

self.num=num

def bina(self):

return bin(self.num)

def octa(self):

return oct(self.num)

def hexa(self):

return hex(self.num)

a=int(input('Enter any positive integer,a:'))

x=convert(a)

print('Binary of a:',x.bina())

print('Hexadecimal of a:',x.hexa())

print('Octal of a:',x.octa())

5. Write a Python Program To Find ASCII value of a character?

Ans.

class asciiconv:

def \_\_init\_\_(self,char):

self.char=char

def asciival(self):

print('ASCII value of the character is',ascii(str(self.char)))

a=input('Enter any ASCII character:')

x=asciiconv(a)

x.asciival()

6. Write a Python Program to Make a Simple Calculator with 4 basic mathematical operations?

Ans.

a=int(input('Enter any integer,a:'))

b=int(input('Enter any integer,b:'))

class calculator:

def \_\_init\_\_(self,a,b):

self.a=a

self.b=b

def add(self):

print('The sum of a and b is:',a+b)

def subtract(self):

print('The difference of a and b is:',a-b)

def multiply(self):

print('The product of a and b is:',a\*b)

def divide(self):

print('a divided by b is:',a/b)

x=calculator(a,b)

x.add()

x.subtract()

x.multiply()

x.divide()