1. RELATIONAL OPERATIONS

class data:

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

self.a=a

self.b=b

def fun(self):

return (self.a>=self.b)

def fun2(self):

return (self.b>=self.a)

a=10

b=20

cal=data(a,b)

print(cal.fun())

print(cal.fun2())

O/P:

False

True

2.Leap Year:

class leapyear:

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

self.a = y

def check\_leapyear(self):

if (self.a % 400) == 0:

print("the entered century year is the leap year")

elif (self.a % 4 == 0) and (self.a % 100) != 0:

print("the entered non-century year is the leap year")

else:

print("the entered century or non-century year is not the leap year")

e = int(input("enter the year to check whether leapyear or not:"))

leap = leapyear(e)

leap.check\_leapyear()

O/P:

enter the year to check whether leapyear or not:2000

the entered century year is the leap year

3.Fibinochi series:

class data2:

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

self.a=a

self.b=b

self.n=n

def fib(self):

for i in range(0,n):

print(self.a)

last=self.a+self.b

self.a=self.b

self.b=last

n=int(input("enter the value"))

a=0

b=1

cal=data2(a,b,n)

print(cal.fib())

O/P:

enter the value8

0

1

1

2

3

5

8

13

4. factorial using function:

class factorial:

a=1

c=1

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

self.n=i

def implfacto(self):

while self.c<=self.n:

self.a\*=self.c

self.c+=1

print(self.a)

num=int(input("enter the value"))

fact=factorial(num)

fact.implfacto()

O/P:

enter the value10

1

2

6

24

120

720

5040

40320

362880

3628800

5.Reverse String:

class revstring:

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

self.n=i

def string(self):

print(self.n[::-1])

name=(input("enter the value"))

data=revstring(name)

data.string()

O/P:

enter the value earth

htrae

6.Logic Operations:

class logic\_operations:

def \_\_init\_\_(self, p, q):

self.a = p

self.b = q

def perform\_logic(self):

print(self.a & self.b)

print(self.a | self.b)

print(~self.a)

print(~self.b)

print(self.a ^ self.b)

c = int(input("enter the value of a:"))

d = int(input("enter the value of b:"))

log = logic\_operations(c, d)

log.perform\_logic()

O/P:

enter the value of a:6

enter the value of b:8

0

14

-7

-9

14