FIRST SEMESTER MCA (2020 SCHEME) Reg No. 1CE20MCA-2030

PRACTICAL EXAMINATION JUNE-JULY 2021 Date : 07 July 2021

Time :

20MCA131 PROGRAMMING LAB

Batch - II

Q:1) Generates Fibonacci Series of N terms

Program: n= int (input ("Enter the number of terms:"));

$f_1, f_2 = 0, 1$

$f_3 = f_1 + f_2$

print ("Fibonacci Series of first", n, "term is:");

print (f_1)

print (f_2)

for i in range (3, n+1);

print (f_3)

$f_1 = f_2$

$f_2 = f_3$

$f_3 = f_1 + f_2$

Algorithm

Step - 1 : Start

Step 2 : Declare variables f_1, f_2 and give values 0 and 1

Step 3 : Declare $f_3 = f_1 + f_2$

Step 4 : Print f_1 and f_2

Step 5 : Read the range and store in n, Declare i = 3

Step 6 : Repeating the steps until i ≤ n

Step 7 : print f_3

Step 8 : $f_1 = f_2$

Step 9 : $f_2 = f_3$

Step 10 : $f_3 = f_1 + f_2$

Step 11 : i += 1

Step 12 : Stop

Output :

Enter the number of terms : 6

Fibonacci series of first 6 term is :

0
1
1
2
3
5

Q:2) Create a class Time with private attributes hour, minute and second, overload + operator to find sum of 2 time.

program : class time :

```
def init (self, h,m,s):
    self.hr = h
    self.min = m
    self.sec = s
def add (self, other):
    tempsec = self.sec + other.sec
    tempmin = tempsec/60
```

```
self.min = self.min + other.min + tempmin
temphr = self.min // 60
self.min = int(self.min % 60)
self.hr = int(self.hr + other.hr + temphr)
return time(self.hr, self.min, self.sec)
def str(self):
return str(self.hr) + 'hr' + str(self.min) + 'min' + str(self.sec)
                                                    + 'sec'
a = int(input("Enter hour of t1:"))
b = int(input("Enter minute of t1:"))
c = int(input("Enter second of t1:"))
x = int(input("Enter hour of t2:"))
y = int(input("Enter minute of t2:"))
z = int(input("Enter second of t2:"))
t1 = time(a,b,c)
t2 = time(x,y,z)
Print(t1 + t2).
```

Algorithm

Step 1 : Start
Step 2 : Declare variables a,b,c,x,y,z
Step 3 : Read value of hour t1 into a
Step 4 : Read value of minute of t1 into b
Step 5 : Read value of second of t1 into c
Step 6 : Read value of hour of t2 into x
Step 7 : Read value of minute of t2 into y
Step 8 : Read value of second of t2 into z
Step 9 : t1 = time(a,b,c)
Step 10 : t2 = time(x,y,z)

Step 11 : print values t_1 & t_2

Step 12 : Stop.

Output

Enter hour of t_1 : 1

Enter minute of t_1 : 23

Enter second of t_1 : 10

Enter hour of t_2 : 3

Enter minute of t_2 : 22

Enter second of t_2 : 31

4hr 45min 41 sec