VAILANKANNI PUBLIC SCHOOL - CBSE

Class: XII **PERIODIC TEST – II (2019-20)** **Marks: 50**

Subject: Computer Science(083) **Set-II** **Time: 2 Hours**

Name:	**Roll No:**	**Date:**

General Instructions:

- **All questions are compulsory.**
- **In Question 2(b, d) has internal choices.**

Q1:

a. What is Default Arguments? (1)

b. From the program code given below, identify the parts mentioned below: (2)

```
def sum(a):
    a=100
    return a+3
b=150
val=sum(b)
```

Identify these parts:

function header, function call, arguments, parameters, function body, main program

c. Trace the flow of execution for the following program: (1)

```
1. def addEm(x,y,z):
2.     print(x+y+z)
3.
4. def prod(x,y,z):
5.     return x * y * z
6. a=addEm(6,10,26)
7. b=prod(2,3,6)
8. print(a,b)
```

d. What do you understand by local and global scope of variables? How can you access a global variable inside the function, if function has a variable with same name. (1)

e. Predict the output of the following code (3)

(i)

```
def fun(s):
    k=len(s)
    m=" "
    for i in range(0,k):
    if(s[i].isupper()):
        m=m+s[i].lower()
    elif s[i].isalpha():
        m=m+s[i].upper()
    else:
        m=m+'bb'
        print(m)
fun('vps19$kri')
```

(ii)

```
def Change(P ,Q=60):
    P=P+Q
    Q=P-Q
    print( P,"#",Q)
    return (P)
R=600
S=300
R=Change(R,S)
print(R,"#",S)
S=Change(S)
```

(iii)

```
i=3
j=5
x=0
i=i+(j-i)
x=j+i
print(x,":",i)
j=j**2
x=j+i
i=i+1
print(i,":",j)
```

f. Write a program that receives two numbers in a function and returns the results of all arithmetic operation(+,-,*,/,%) on these numbers. (2)

g. Describe about returning values from functions in python with examples (2)

h. Write and explain any two Built-in functions (2)

Q2.

a. What is Python Module and Package? (2)

b. How are following import statements different? (2)

i) import X ii) from X import * iii)from X import a,b,c

(or)

What is the problem in the following piece of code?

```
from math import factorial
print(math.factorial(10))
```

c. Write the structure of python Module and define __init__.py in a package. (2)

d. What is the use of help( ) and dir( ) functions. (2)

(or)

What possible outputs(s) are expected to be displayed on screen at the time of execution of the program from the following code? Also specify the maximum values that can be assigned to each of the variables FROM and TO.

```
AR=[20,30,40,50,60,70];
FROM=random.randint(1,3)
TO=random.randint(2,4)
for K in range(FROM,TO+1):
    print (AR[K],end="# ")
```

(i) 10#40#70# (ii) 30#40#50# (iii) 50#60#70# (iv) 40#50#70#

e. Rewrite the following python code after removing all syntax error. Underline the corrections done. (2)

```
def main():
    r=input("Enter any radius:")
    a-pi*maths.pow(r,2)
    print("Area=",+a)
      Main( )
```

Q3.

a. Differentiate between a text file and a binary file. (2)

b. What are the various method for reading data from file? (1)

c. Write a function in python to count the number of lines in a text file '**STORY.TXT**' which is starting with an alphabet **'A'** . (2)

d. Create a file to hold some data , separated as lines. (2)

e. Write a program to display the number of lines in the file. (2)

f . Describe about '***with'*** statement in python with example (2)

Q4.

a. What do you understand by the term Iteration? (1)

b. Explain the Recursive Function. with examples. (2)

c. Write a recursive function to print Fibonacci series up to n^{th} term. (2)

d. Write a note on Binary Search. (2)

e. Describe about Iterative Version with examples. (2)

f. Write the steps to search 44 and 36 using binary search in the following array (2)

DATA:

10	12	14	21	23	28	31	37	42	44	49	53

Q5 .

a. What is pyplot? Is it a Python library? (1)

d. Name the functions you will use to create a i) line chart, ii) bar chart iii) pie chart.(1)

c. A bar chart is drawn(using pyplot) to represent sales data of various models of cars, for a month. Write appropriate statements in Python to provide labels **Month - June** and **Sale done** to x and y axis respectively. (2)