SAINIK SCHOOL AMARAVATHINAGAR
SERIES TEST - I

DATE:	**COMPUTER SCIENCE (083)**	**MAX MARKS : 70**
CLASS: XII		**MAX TIME : 3h**

General Instructions:

1. *Please check that this question paper contains 04 printed pages.*

2. *Please check that this question paper contains 06 questions.*

3. *Please write down the serial number of the question before attempting it.*

4. *All questions are compulsory.*

5. *Programming language: Python.*

1.   Answer the Followings each carries one mark   (1 x 4 = 04)

a)   Which of the following is valid arithmetic operator in Python:
       (i) // (ii) ? (iii) < (iv) and

b)   Name the Python Library modules which need to be imported to invoke the following
functions: (i)   **ljust()**   (ii)   **dump()**

c)   Write the type of tokens from the following:
       (i) if (ii) roll_no

d)   What is the purpose the else statement in for loop?

2   Answer the followings each carries 2 marks   (2 x 5 = 10)

a)   Write down the procedure to create an package? Give suitable example.

b)   Differentiate between local and global variables

c)   Differentiate between logical error and syntax error

d)   What is an argument? List the types of arguments?

e)   Find and write the output of the following python program code:

```
count = 1

def doThis():

    global count

    for i in (1, 2, 3):

        count += 1

doThis()
```

```
      print (count)
```

3   Answer the followings each carries 2 marks   (2 x 5 = 10)

a)   Rewrite the following python code after removing any/all syntactical errors with each correction underlined.

```
250 = Number
WHILE Number<=1000:
    if Number=>750:
         print Number
        Number=Number+100
    Else
         print Number*2 Number=Number+50
```

b)   Find and write the output of the following python code :

```
Msg1="WeLcOME"
Msg2="GUeSTs"
Msg3=""
for I in range(0,len(Msg2)+1):
    if Msg1[I]>="A" and Msg1[I]<="M":
      Msg3=Msg3+Msg1[I]
    elif Msg1[I]>="N" and Msg1[I]<="Z":
      Msg3=Msg3+Msg2[I]
    else:
      Msg3=Msg3+"*"
print (Msg3)
```

c)   What possible output(s) are expected to be displayed on screen at the time of execution of the program from the following code ? Also specify the minimum values that can be assigned to each of the variables **BEGIN** and **LAST**.

```
import random
VALUES=[10,20,30,40,50,60,70,80]
BEGIN=random.randint(1,3)
LAST=random.randint(BEGIN,4)
for I in range(BEGIN,LAST+1):
```

```
        print (VALUES[I],"-")
```

(i)   30 - 40 - 50 -   (ii)   10 - 20 - 30 - 40 -

(iii)   30 - 40 - 50 - 60 -   (iv)   30 - 40 - 50 - 60 - 70 –

d)   Define scope of the variable

e)   Look at the following python code and find the possible output(s) from the options (i) to (iv) following it.

```
x = 50
def func(x):
    print('x is', x)
    x = 2
    print('Changed local x to', x)
func(x)
print('x is now', x)
```

i) x is now 50   ii) x is now 2

iii) x is now 100   iv) None of the mentioned

4   Answer the followings each carries 3 marks   (3 x 5 = 15)

a)   Find and write the output of the following python code :
```
def Changer(P,Q=10):
    P=P/Q
    Q=P%Q
    print (P,"#",Q)
    return P
A=200
B=20
A=Changer(A,B)
print (A,"$",B)
B=Changer(B)
print (A,"$",B)
A=Changer(A)
print (A,"$",B)
```

b)   Write a program to generate n prime numbers

c)   Write a program to check entered number is perfect numbers or not

d)   Write a note on python standard library

e)   Write a program to count total number of words in a string

5   Answer the followings each carries 3 marks   (3 x 5 = 15)

a)   Explain in detail LEGB Rule

b)   Given a string `s = "12345"` write an expression that gives sum of all digits in the string. Example: `15 (1 + 2 + 3 + 4 + 5)`

c)   What is __init__.py file?

d)   How a python searches module, write down step by step manner.

e)   What is member aliasing? Explain in detail

6.   Answer the followings each carries 4 marks   (4 x 4 = 16)

a)   Explain the followings with suitable example

   i)   Positional Arguments   ii)   Default Arguments

b)   Explain the followings with suitable examples

   i)   Keyword Arguments   ii)   Variable Length Arguments

c)   Explain any 4 String related functions of python.

d)   Write a note on list comprehension

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