

REVISION TEST SERIES

COMPUTER SCIENCE

CS1- SET B

TIME: 1½ HOURS

MAXIMUM MARK 35

SECTION A. Each carries 1 mark

- Which of the following is function header statement is correct.
def fun(x=1,y) b. def fun(x=1,y,c=2) c. def fun(a,y=3)
- Predict the output of following code snippet:

```
def function1(a):  
    a=a+'1'  
    a=a*2  
function1('Hello')
```

a Hello1Hello1 b. Hello 1 c. Hello1Hello0 d. Hello Hello1
- The statement `del l[1:3]` do which of the following task?
a) delete elements 2 to 4 elements from the list
b) delete 2nd and 3rd element from the list
c) deletes 1st and 3rd element from the list
d) deletes 1st, 2nd and 3rd element from the list
- Which of the following can be used as valid variable identifier(s) in Python?
a. total b. 7Salute c. Que\$tion d. global
- A void function internally returns legal empty value
a) None b) Close() c) Return d) all Ans a
- Which of the following function header is correct?
a) def mul(a=2, b=5,c) b) def mul(a=2, b, c=5)
c) def mul(a, b=2, c=5) d) def mul(a=2, b, c=5)
- Give the output

```
def fun():  
    global a  
    a=10  
    print(a)  
    a=5  
    fun()  
    print(a)
```

a) 10 b) 5 c) 5 d) 10
 10 10 5 5

8. What data type is the object below?
L = (1, 23, 'hello', 1)
a) list b) dictionary c) array d) tuple

SECTION B. Each question carries 2marks.

9. Differentiate between actual parameter(s) and a formal parameter(s) with a suitable example for each

OR

Differentiate between call by value and call by reference with a suitable example for each.

10. Predict the output of the following code snippet:

```
def Execute(M):  
    if M%3==0:  
        return M*3  
    else:  
        return M+10;  
def Output(B=2):  
    for T in range (0,B):  
        print(Execute(T),"*",end="")  
    print()  
    Output(4)  
    Output()  
    Output(3)
```

11. 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.

```
import random  
AR=[20,30,40,50,60,70]  
FROM=random.randint(1,3)  
TO=random.randint(2,4)  
for K in range(FROM,TO):  
    print (AR[K],end="#"")  
(i)10#40#70#(ii)30#40#50# (iii)50#60#70# (iv)40#50#70#
```

SECTION C. Each Question carries 3 marks

12. Write a Python program to find the maximum and minimum elements in the list entered by the user.

OR

Write a program to print of fibonnaci series upto n.

for example if n is 50 then output will be :

0
1
1
2
3
5
8
13
21
34

13. Rewrite the following code in python after removing all syntax errors. Underline each correction done in the code:

```
Def func(a):  
    for i in (0,a):  
        if i%2 =0:  
            s=s+1  
        elseif i%5= =0  
            m=m+2  
        else:  
            n=n+i  
            print(s,m,n)  
    func(15)
```

14. Write Python code to find whether the given item is present in the given list using for loop.
15. Create a list k, by selecting all the od numbers within the given range, m and n. User will input the values of m , n at run time

SECTION C.. Each question carries 5marks

16. a) Write a Python program to find the maximum and minimum elements in the list entered by the user.
- b) Write a user defined function countwords() to accept a sentence from console and display the total number of words present in that sentence.
For example if the sentence entered by user is:
"Living a life you can be proud of doing your best." then the countwords() function should display the output as:
Total number of words : 11

OR

- a) Write a python program to find simple interest using a user defined function with parameters and with return value.

- b) Write program to add those values in the list of NUMBERS, which are odd.
Sample Input Data of the List
NUMBERS=[20,40,10,5,12,11]
OUTPUT is 16

SECTION E-CASE STUDY

1 x 4 = 4

17. Traffic accidents occur due to various reasons. While problems with roads or inadequate safety facilities lead to some accidents, majority of the accidents are caused by drivers' carelessness and their failure to abide by traffic rules.

ITS Roadwork is a company that deals with manufacturing and installation of traffic lights so as to minimize the risk of accidents. Keeping in view the requirements, traffic simulation is to be done. Write a program in Python that simulates a traffic light. The program should perform the following:

- (a) A user-defined function `trafficlight()` that accepts input from the user, displays an error message if the user enters anything other than RED, YELLOW and GREEN. Function `light()` is called and the following is displayed depending upon return value from `light()`:
- (i) "STOP, Life is more important than speed" if the value returned by `light()` is 0.
 - (ii) "PLEASE GO SLOW." if the value returned by `light()` is 1.
 - (iii) "You may go now." if the value returned by `light()` is 2.
- (b) A user-defined function `light()` that accepts a string as input and returns 0 when the input is RED, 1 when the input is YELLOW and 2 when the input is GREEN. The input should be passed as an argument.
- (c) Display "BETTER LATE THAN NEVER" after the function `trafficLight()` is executed.