

REVISION TEST SERIES

CS1 SETA

Class 12 - Computer Science

Time Allowed: 1 hour and 30 minutes

Maximum Marks: 35

Section A

1. Suppose a tuple T is declared as T = (10, 12, 43, 39), which of the following is incorrect? [1]
- a) print(T[1])
 - b) T[2] = -29
 - c) print(max(T))
 - d) print(len(T))
2. List AL is defined as follows: [1]
AL= [1, 2, 3, 4, 5]
Which of the following statements removes the middle element 3 from it so that the list AL equals [1, 2, 4, 5]?
- A. del a[2]
 - B. a[2:3] = []
 - C. a[2:2] = []
 - D. a[2] = []
 - E. a.remove(3)
- a) B, D, E
 - b) A, C, D
 - c) C, D, E
 - d) A, B, E
3. Which code segment will output the number 20 to the console window? [1]
- a) myValue01 = 10
myValue02 = 10
print(myValue01 + myValue02)
 - b) myValue01 = "10"
myValue02 = "10"
myValue01 = myValue01 + myValue02
print(myValue02)
 - c) myValue01 = 10
myValue02 = 10
myValue01 = myValue01 + myValue02
print(myValue01)
 - d) myValue01 = "10"
myValue02 = "10"
print(myValue01 + myValue02)
4. What is the default return value for a function that does not return any value explicitly? [1]
- a) double
 - b) None
 - c) null
 - d) int
5. Which of the following function headers is correct? [1]
- a) def f(a = 1, b = 1, c = 2):
 - b) def f(a = 1, b, c = 2):
 - c) def f(a = 1, b = 1, c = 2, d):
 - d) def f(a = 1, b):
6. Which of the following four code fragments will yield the following output? [1]
Eina
Nina
Dika
Select all of the function calls that result in this output

a) print('Eina
Nina
Dika')

b) print('Eina\nNina\nDika')

c) print(' ' ' EinaMinaDika' ' '')

d) print("""Eina
Nina
\nDika""")

7. Carefully observe the code and give the answer. [1]

```
def function1(a):  
    a = a + '1'  
    a = a * 2  
>>>function1("hello")
```

a) hello2

b) cannot perform mathematical operation on strings

c) hello2hello2

d) indentation error

8. **Assertion (A):** The tuple items cannot be deleted by using the del keyword. **Reason (R):** To delete an entire tuple, we can use the del keyword with the tuple name. [1]

a) Both A and R are true and R is the correct explanation of A.

b) Both A and R are true but R is not the correct explanation of A.

c) A is true but R is false.

d) A is false but R is true.

SECTION B

9. If a is (1, 2, 3) [2]

- i. what is the difference (if any) between $a * 3$ and (a, a, a) ?
- ii. is $a * 3$ equivalent to $a + a + a$?
- iii. what is the meaning of $a[1:1]$?
- iv. what's the difference between $a[1:2]$ and $a[1:1]$?

OR

Write a program to sort the list alphabetically in a dictionary.

10. Rewrite the following code in Python after removing all syntax error(s). Underline each correction done in the code. [2]

```
Value = 30  
for VAL in range(0,Value)  
If val % 4 == 0:  
print (VAL * 4)  
Elseif val % 5 == 0:  
print (VAL + 3)  
else  
print(VAL + 10)
```

11. Predict the output of the following code: [2]

```
num = 1  
def myfunc():  
    global num  
    num=10  
    return num  
print(num)  
print(myfunc())  
print(num)
```

SECTION C

12. Write Python code to create and add items to a dictionary. Ask the user to input key value pairs. Continue as long as the user wishes. [3]
13. Write a program to sort a dictionary's keys using Bubble sort and produce the sorted keys as a list. [3]
14. Rewrite the following code in python after removing all syntax errors. Underline each correction done in the code: [3]

```

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)

```

15. Write a function listchange(Arr)in Python, which accepts a list Arr of numbers , the function will replace the even number by value 10 and multiply odd number by 5 . [3]

SECTION D

16. a) Write a function REP which accepts a list of integers and size of list and replaces elements having even values with its half and elements having odd values with twice its value. eg: if the list contains [5]

3, 4, 5, 16, 9
then the function should rearranged list as
6, 2,10,8, 18

b)

Find and write the output of the following Python code:

```

def Show(str):
    m=""
    for i in range(0,len(str)):
        if(str[i].isupper()):
            m=m+str[i].lower()
        elif str[i].islower():
            m=m+str[i].upper()
        else:
            if i%2==0:
                m=m+str[i-1]
            else:
                m=m+"#"
    print(m)
Show('HappyBirthday')

```

OR

a) Write a program in Python, which accepts a list Arr of numbers , the function will replace the even number by value 10 and multiply odd number by 5 .

Sample Input Data of the list is:

arr=[10,20,23,45]

output : [10, 10, 115, 225]

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

```
def Change(P ,Q=30):
```

```
P=P+Q
```

```
Q=P-Q
```

```
print( P,"#",Q)
```

```
return (P)
```

```
R=150
```

```
S=100
```

```
R=Change(R,S)
```

```
print(R,"#",S)
```

```
S=Change(S)
```

SECTION E-CASE BASED QUESTIONS

17. Kids Elementary is a playway school that focuses on 'Play and learn' strategy that helps toddlers understand concepts in a fun way. Being a senior programmer, you have taken responsibility to develop a program using user-defined functions to help children differentiate between upper case and lower case letters/English alphabet in a given sentence. Make sure that you perform a careful analysis of the type of alphabets and sentences that can be included as per age and curriculum. Write a Python program that accepts a string and calculates the number of upper case letters and lower case letters. **[4]**