

HOLIDAY HOMEWORK
CLASS-XII (2025-2026)
COMPUTER SCIENCE (Code: 083)

1) State True or False:

“Variable declaration is implicit in Python.”

2) Name the Python Library modules which need to be imported to invoke the following functions:

(i) fabs() (ii) mode() (iii) floor() (iv) random() (v) pi

3) Rewrite the following code in python after removing all syntax error(s). Underline each correction done in the code.

```
define sum(numbers):  
    total = 0  
    for x in numbers  
        total =+ x  
    returns total  
print(sum([4, 6, 3, 5, 6]))
```

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

```
a = 5  
while a > 0 :  
    print("hello", a)  
    a = a – 3
```

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

```
def fun(x):  
    ln=len(x)  
    s=""  
    for i in range(0,ln):  
        if(x[i].isdigit()):  
            s=s+x[i]  
        elif x[i].isupper():  
            s=s+x[i].lower()  
        elif x[i].islower():  
            s=s+x[i].upper()  
        else:  
            s=s+'@'  
    print(s)  
fun('python3#COM')
```

6) 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)
```

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

```
a=100
def fun_call():
    global a
    a=150
    b=200
    print(a)
fun_call()
print(a)
```

8) 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], "-", end=' ')
```

(i) 30 - 40 - 50 -	(ii) 10 - 20 - 30 - 40 -
(iii) 30 - 40 - 50 - 60 -	(iv) 30 - 40 - 50 - 60 - 70 -

9) 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?

10) Write a function INDEX_LIST(L), where L is the list of elements passed as argument to the function. The function returns another list named “IndexList” that stores the indices of all non zero elements of L. **For example:**

If L contains [1, 4, 0, 11, 0, 56]

The IndexList will have [0, 1, 3, 5]