1 What are the different types of actual arguments in function? Give example.

2 What is Local Variable and Global Variables? Illustrate with example

3 A Function can call another function or itself? (T/F)

4 What will be the output of following code:

```
def Alter(x, y = 10, z=20):
    sum=x+y+z
    print(sum)
Alter(10,20,30)
Alter(20,30)
Alter(100)
```

5 Call the given function using KEYWORD ARGUMENT with values 100 and 200

```
def Swap(num1,num2):
    num1,num2=num2,num1
    print(num1,num2)
Swap(_____, _____)
```

6 What will be the output of following code?

```
def check():
    global num
    num=5000
    print(num)
num=40
print(num)
check()
print(num)
```

7 What will be the output of following code? X = 50

```
def Alpha(num1):
    global X
    num1 += X
    X += 20
        num1 = Beta(num1)
    return num1
def Beta(num1):
    global X
    num1 += X
    X += 10
        num1 = Gamma(num1)
    return num1
def Gamma(num1):
    X = 200
    num1 += X
    return num1
num = 100
num = Alpha(num)
print(num,X)
```

8 What will be the output of following code?

```
def Total(Number=10):
    Sum=0
    for C in range(1,Number+1):
        if C%2==0:
            continue
        Sum+=C
    return Sum
print(Total(4))
print(Total(7))
print(Total())
```

9 What will be the output of following code?

```
def Fun1(mylist):
    for i in range(len(mylist)):
        if mylist[i]%2==0:
            mylist[i]/=2
        else:
            mylist[i]*=2
list1 =[21,20,6,7,9,18,100,50,13]
Fun1(list1)
print(list1)
```

10 What will be the output of following code?

```
def display(s):
    l = len(s)
    m=""
    for i in range(0,l):
        if s[i].isupper():
            m=m+s[i].lower()

        elif s[i].islower():
            m=m+s[i].upper()

        elif s[i].isdigit():

            m=m+"$"

        else:
            m=m+"*"
    print(m)
display("EXAM20@cbse.com")
```

11 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 [12,4,0,11,0,56] ,
The indexList will have - [0,1,3,5]

12 What will be the output of following code?

```
def Total(Number=10):
    Sum=0
    for C in range(1,Number+1):
        if C%2==0:
            continue
        Sum+=C
        return Sum
print(Total(4))
print(Total(7))
print(Total())
```

13 Write the output for the following code? X = 100 150

```
def Change(P=10, Q=25):
    global X
    if P%6==0:
        X+=100
    else:
        X+=50
    Sum=P+Q+X
    print(P, '#', Q, '$', Sum)
Change()
Change(18,50)
Change(30,100)
```

14 What will be the output of following code? a=100

```
def Fun1(num1):
    num1*=2
    num1 = Fun2(num1)
    return num1
def Fun2(num1):
    num1 = num1 // 2
    return num1
n = 120
n = Fun1(n)
print(n)
```

15 Write the output of the following code:

```
def ChangeList():
    M, M1=[], []
    M2=[]
    for i in range(1,10):
        M.append(i)
    for i in range(10,1,–2):
        M1.append(i)
    for i in range(len(M1)):
        M2.append(M1[i]+M[i])
        M2.append(len(M)-len(M1))
    print(M2)
ChangeList()
```

16 Write a function Swap(num, n) in Python, which accepts a list num of numbers and n is the number of elements. The function will interchange every alternate value. E.g
If the list num contain: [11, 21, 31, 41, 51, 61]
Output, [21, 11, 41, 31, 61, 51]

17 A School has created a dictionary containing top players and their runs as key value pairs of cricket team. Write a program with separate user defined functions to perform the following operations: (a) Push the name of the players(Keys) of the dictionary into a stack, where the corresponding runs (value) is greater than 49. (b) Pop and display the content of the stack.

18 Write a program in Python, with separate user defined functions to perform the following operations on Stack 'City'.
(a) - Push the pin code and name of the city in the stack 'City'
(b) - Display the latest added element in the stack 'City'

19 Write a function in python named SwapHalfList(Array), which accepts a list Array of numbers and swaps the elements of 1st Half of the list with the 2nd Half of the list ONLY if the sum of 1st Half is greater than 2nd Half of the list. Sample Input Data of the list
Array= [100, 200, 300, 40, 50, 60],
Output Arr = [40, 50, 60, 100, 200, 300]

20 Write a function, lenWords(STRING), that takes a string as an argument and returns a tuple containing length of each word of a string. For example, if the string is "Come let us have some fun", the tuple will have (4, 3, 2, 4, 4, 3)

21 Write a function display oddLines() to display odd number lines from the text file.

22 Write a function in python to count the number of lowercase alphabets present in a text file.

23 Write a user-defined function in Python that displays the number of lines starting with 'H' in the file Para.txt. Example, if the file contains:
Whose woods these are I think I know.
His house is in the village though;
He will not see me stopping here
To watch his woods fill up with snow.
Then the line count should be 2.

24 A text file "PARA.txt" contains a paragraph. Write a function that searches for a given character and reports the number of occurrence of the character in the file.

25 Consider a binary file Employee.dat containing details such as empno: ename: salary (separator ':'). Write a Python function to display details of those employees who are earning between 20000 and 40000 (both values inclusive).

26 What are the possible outcome(s) for "Jumble String", when following code will be executed?
```
import random
stringN = "SimplyCoding"
char_list = list(stringN)
random.shuffle(char_list)
stringN = ''.join(char_list)
print ( stringN )
```
a) (CmodlnpgiSyi) b) miSiypgoCdln
c) 'lCSgpimiondy' d) kpCyodigntS

27 To include the use of functions which are present in the random library, we must use the option:
a) import random b) random.h
c) import.random d) random.random

28 What will be the output of the following Python function if random module has already imported?
random.randint(3.5,7)
a) Error b) Any integer between 3.5 and 7, including 7
c) Any integer between 3.5 and 7, excluding 7
d) The integer closest to the mean of 3.5 and 7

29 Which is the incorrect executed from the following code?
```
import random
list=[14, 62, 30, 57, 91]
str= ('Simply')
print ( random.choice(list),"and" ,
random.choice(str) )
```
a) 57 and i b) 62 and S
c) 20 and p d) 30 and M

30 Which is the correct outcome from the code below?
```
import random
n1= random.randrange(1, 10, 2)
n2= random.randrange(1, 10, 3)
print (n1,"and",n2)
```
a) 2 and 7 b) 3 and 4 c) 8 and 10 d) 8 and 9

31 WAP to generate 3 random integers between 100 and 999 which is divisible by 5.

32 WAP to generate 100 random lottery tickets and pick two lucky tickets from it as a winner.

33 WAP to generate 6 digit random secure OTP.

34 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 BEG and END. Assume random module is used.
```
HEIGHTS=[10,20,30,40,50]
BEG=random.randint(0,2)
END=random.randint(2,4)

for X in range(BEG,END):
    print(HEIGHTS[X],end="@")
```
a) 30@ b) 10@20@30@40@50@
c) 20@30 d) 40@30@

35 Do the following question.
```
import random

STRING="CBSEONLINE"
NUMBER = random.randint (0, 3)
N=9
while STRING[N] != "L":
    print (STRING[N] + STRING[NUMBER] +  "#", end = " ")
    NUMBER = NUMBER +1
    N=N-1
```

What possible output(s) are expected to be displayed on the screen at the time of execution of the program from the following code? Also, specify the Minimum and Maximum values that can be assigned to the variable Number.

(a) ES#NE#IO# (b)LE#NO#ON# (c) NS#IE#LO# (d) EC#NB#IS#