

Scan  
QR Code

## Assignment

### Type A : Short Answer Questions/Conceptual Questions

1. A program having multiple functions is considered better designed than a program without any functions. Why ?
2. What all information does a function header give you about the function ?
3. What do you understand by flow of execution ?
4. What are arguments ? What are parameters ? How are these two terms different yet related ? Give example.
5. What is the utility of :
  - (i) default arguments,
  - (ii) keyword arguments ?
6. Explain with a code example the usage of default arguments and keyword arguments.
7. Describe the different styles of functions in Python using appropriate examples.
8. Differentiate between fruitful functions and non-fruitful functions.
9. Can a function return multiple values ? How ?
10. What is scope ? What is the scope resolving rule of Python ?
11. What is the difference between local and global variables ?
12. When is *global* statement used ? Why is its use not recommended ?
13. Write the term suitable for following descriptions :
  - (a) A name inside the parentheses of a function header that can receive a value.
  - (b) An argument passed to a specific parameter using the parameter name.
  - (c) A value passed to a function parameter.
  - (d) A value assigned to a parameter name in the function header.
  - (e) A value assigned to a parameter name in the function call.
  - (f) A name defined outside all function definitions.
  - (g) A variable created inside a function body.
14. 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.
 

[CBSE Sample Paper 2019-20]

### Type B : Application Based Questions

1. What are the errors in following codes ? Correct the code and predict output :

```
(a) total = 0;
    def sum( arg1, arg2 ):
        total = arg1 + arg2;
        print("Total :", total)
    return total;
    sum( 10, 20 );
    print("Total :", total)
```

```

(b) def Tot(Number)           #Method to find Total
    Sum = 0
    for C in Range (1, Number + 1) :
        Sum += C
    RETURN Sum
print (Tot[3])               #Function Calls
print (Tot[6])

```

[CBSE D 2015]

2. Consider the following code and write the flow of execution for this. Line numbers have been given for your reference.

```

1   def power(b, p):
2       y = b ** p
3       return y
4
5   def calcSquare(x):
6       a = power(x, 2)
7       return a
8
9   n = 5
10  result = calcSquare(n)
11  print(result)

```

3. What will the following function return ?

```

def addEm(x, y, z):
    print(x + y + z)

```

4. What will the following function print when called ?

```

def addEm(x, y, z):
    return x + y + z
    print(x + y + z)

```

What will be the output of following programs ?

(i) num = 1

```

def myfunc():
    return num
print(num)
print(myfunc())
print(num)

```

(ii) num = 1

```

def myfunc():
    num = 10
    return num
print(num)
print(myfunc())
print(num)

```

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

```
(iv) def display():
    print("Hello", end = ' ')
    display()
    print("there!")
```

6. Predict the output of the following code :

```
a = 10
y = 5
def myfunc():
    y = a
    a = 2
    print("y =", y, "a =", a)
    print("a + y =", a + y)
    return a + y
```

```
print("y =", y, "a =", a)
print(myfunc())
print("y =", y, "a =", a)
```

7. What is wrong with the following function definition ?

```
def addEm(x, y, z):
    return x + y + z
    print("the answer is", x + y + z)
```

8. Write a function namely fun that takes no parameters and always returns None.

9. Consider the code below and answer the questions that follow :

```
def multiply(number1, number2):
    answer = number1 * number2
    print(number1, 'times', number2, '=', answer)
    return(answer)
```

```
output = multiply(5,5)
```

(i) When the code above is executed, what prints out ?

(ii) What is variable output equal to after the code is executed ?

10. Consider the code below and answer the questions that follow :

```
def multiply(number1, number2):
    answer = number1 * number2
    return(answer)
    print(number1, 'times', number2, '=', answer)
```

```
output = multiply(5,5)
```

(i) When the code above is executed, what gets printed ?

(ii) What is variable output equal to after the code is executed ?

11. Find the errors in code given below :

```
(a) def minus(total, decrement)
    output = total - decrement
    print(output)
    return (output)
```

```
(b) define check()
    N = input ('Enter N: ')
    i = 3
    answer = 1 + i ** 4 / N
    Return answer
```

```
(c) def alpha (n, string = 'xyz', k = 10) :
    return beta(string)
    return n
```

```
def beta (string)
    return string == str(n)
```

```
print(alpha("Valentine's Day"))
print(beta (string = ' true '))
print(alpha(n = 5, "Good-bye") :)
```

12. Draw the entire environment, including all user-defined variables at the time line 10 is being executed

```
1. def sum(a, b, c, d):
2.     result = 0
3.     result = result + a + b + c + d
4.     return result
5.
6. def length():
7.     return 4
8.
9. def mean(a, b, c, d):
10.    return float(sum(a, b, c, d))/length()
11.
12. print(sum(a, b, c, d), length(), mean(a, b, c, d))
```

13. Draw flow of execution for above program.

14. In the following code, which variables are in the same scope ?

```
def func1():
    a = 1
    b = 2
def func2():
    c = 3
    d = 4
e = 5
```