

SAINIK SCHOOL GOPALGANJ
SUB: COMPUTER SCIENCE
CLASS - XII
ASSIGNMENT

Lesson 2: Functions

A. (Q1 to Q20) There are four options against each question. Choose the option which you consider the most appropriate as your answer.

1. Which of the following is the use of function in python?

- a) Functions are reusable pieces of programs
- b) Functions don't provide better modularity for your application
- c) you can't also create your own functions
- d) All of the mentioned

2. Which keyword is use for function?

- a) Fun
- b) Define
- c) Def
- d) Function

3. What is the output of the below program?

```
def sayHello():  
    print('Hello World!')
```

```
sayHello()
```

```
sayHello()
```

a) Hello World!

Hello World!

b) 'Hello World!'

'Hello World!'

c) Hello

Hello

d) None of the mentioned

4. What is the output of the below program?

```
def printMax(a, b):
```

```
    if a > b:
```

```
        print(a, 'is maximum')
```

```
    elif a == b:
```

```
        print(a, 'is equal to', b)
```

```
    else:
```

```
        print(b, 'is maximum')
```

```
printMax(3, 4)
```

- a) 3
- b) 4
- c) 4 is maximum
- d) None of the mentioned

5. What is the output of the below program ?

```
x = 50
def func(x):
    print('x is', x)
    x = 2
    print('Changed local x to', x)
func(x)
print('x is now', x)
```

- a) x is now 50
- b) x is now 2
- c) x is now 100
- d) None of the mentioned

6. What is the output of the below program?

```
x = 50
def func():
    global x
    print('x is', x)
    x = 2
    print('Changed global x to', x)
func()
print('Value of x is', x)
```

- a) x is 50
Changed global x to 2
Value of x is 50
- b) x is 50
Changed global x to 2
Value of x is 2
- c) x is 50
Changed global x to 50
Value of x is 50
- d) None of the mentioned

7. What is the output of below program?

```
def say(message, times = 1):
    print(message * times)
say('Hello')
say('World', 5)
```

a) Hello
WorldWorldWorldWorldWorld

b) Hello
World 5
c) Hello
World,World,World,World,World
d) Hello
HelloHelloHelloHelloHello

8. What is the output of the below program?

```
def func(a, b=5, c=10):  
    print('a is', a, 'and b is', b, 'and c is', c)  
func(3, 7)  
func(25, c = 24)  
func(c = 50, a = 100)
```

- a) a is 7 and b is 3 and c is 10
a is 25 and b is 5 and c is 24
a is 5 and b is 100 and c is 50
- b) a is 3 and b is 7 and c is 10
a is 5 and b is 25 and c is 24
a is 50 and b is 100 and c is 5
- c) a is 3 and b is 7 and c is 10
a is 25 and b is 5 and c is 24
a is 100 and b is 5 and c is 50
- d) None of the mentioned

9. What is the output of below program?

```
def maximum(x, y):  
    if x > y:  
        return x  
    elif x == y:  
        return 'The numbers are equal'  
    else:  
        return y  
print(maximum(2, 3))
```

- a) 2
- b) 3
- c) The numbers are equal
- d) None of the mentioned

10. Which of the following is a features of DocString?

- a) Provide a convenient way of associating documentation with Python modules, functions, classes, and methods
- b) All functions should have a docstring
- c) Docstrings can be accessed by the `__doc__` attribute on objects
- d) All of the mentioned

11. Which are the advantages of functions in python?

- a) Reducing duplication of code
- b) Decomposing complex problems into simpler pieces
- c) Improving clarity of the code
- d) All of the mentioned

12. What are the two main types of functions?

- a) Custom function
- b) Built-in function & User defined function
- c) User function
- d) System function

13. Where is function defined?

- a) Module
- b) Class
- c) Another function
- d) All of the mentioned

14. What is called when a function is defined inside a class?

- a) Module
- b) Class
- c) Another function
- d) Method

15. Which of the following is the use of id() function in python?

- a) Id returns the identity of the object
- b) Every object doesn't have a unique id
- c) All of the mentioned
- d) None of the mentioned

16. Which of the following refers to mathematical function?

- a) sqrt
- b) rhombus
- c) add
- d) rhombus

17. What is the output of below program?

```
def cube(x):  
    return x * x * x  
x = cube(3)  
print x  
a) 9  
b) 3
```

- c) 27
- d) 30

18. What is the output of the below program?

```
def C2F(c):  
    return c * 9/5 + 32  
print C2F(100)  
print C2F(0)
```

- a) 212
- 32
- b) 314
- 24
- c) 567
- 98
- d) None of the mentioned

19. What is the output of the below program?

```
def power(x, y=2):  
    r = 1  
    for i in range(y):  
        r = r * x  
    return r
```

```
print power(3)  
print power(3, 3)
```

- a) 212
- 32
- b) 9
- 27
- c) 567
- 98
- d) None of the mentioned

20. What is the output of the below program?

```
def sum(*args):  
    """Function returns the sum  
    of all values"""  
    r = 0  
    for i in args:  
        r += i  
    return r
```

```
print sum.__doc__  
print sum(1, 2, 3)  
print sum(1, 2, 3, 4, 5)
```

- a) 6
- 15
- b) 6

100

c) 123

12345

d) None of the mentioned

B. Short Answer Questions:

- (a) What is function?
- (b) What are the different types of functions?
- (c) What is the significance of having function in a program?
- (d) What is the difference between formal parameter and actual parameter? What are the alternative names? Write a program in Python to illustrate the same.
- (e) What is the difference between the local variable and global variable

B. Short Answer Questions:

- (a) Explain the different type of functions with suitable examples.
- (b) Explain various types of arguments with suitable example.
- (c) Write a function to find the GCD of two given numbers.
- (d) Write a function to find the sum of numbers given numbers given by the user. The number of value for the sum will be or arbitrary length.
- (e) Write a function in python to find the length of the string.
