

Ch 7: Functions

1. A function in Python begins with which keyword?

- (a) void
- (b) return
- (c) int
- (d) def

2. Name the statement that sends back a value from a function.

- (a) print
- (b) input
- (c) return
- (d) None

3. Functions that do not return any value are known as:

- (a) fruitful functions
- (b) void functions
- (c) library functions
- (d) user-defined functions

4. A variable created or defined within a function body is classified as:

- (a) local
- (b) global
- (c) built-in
- (d) instance

5. Which of the following arguments works with implicit values that are used if no value is provided?

- (a) keyword
- (b) required
- (c) variable-length
- (d) default

6. Which values are used by the functions to communicate information back to the caller?

- (a) local
- (b) global
- (c) return
- (d) random

7. What is the output of the program given below?

```
x = 50
```

```
def func (x) :
```

```
    x = 2
```

```
func (x)
```

```
print ('x is now', x)
```

(a) x is now 50

(b) x is now 2

(c) x is now 100

(d) Error

8. Which is the most appropriate definition for recursion?

(a) A function that calls itself

(b) A function execution instance that calls another execution instance of the same function

(c) A class method that calls another class method

(d) An in-built method that is automatically called

9. Fill in the line of code for calculating the factorial of a number:

```
def fact (num):
```

```
if num == 0 :
```

```
    return 1
```

```
else:
```

```
    return
```

(a) $\text{num} * \text{fact}(\text{num}-1)$

(b) $(\text{num}-1) * (\text{num}-2)$

(c) $\text{num} * (\text{num}-1)$

(d) $\text{fact}(\text{num}) * \text{fact}(\text{num}-1)$

10. Which of the following statements is false about recursion?

(a) Every recursive function must have a base case.

(b) Infinite recursion can occur if the base case isn't properly mentioned.

(c) A recursive function makes the code easier to understand.

(d) Every recursive function must have a return value.

11. What is the output of the following snippet?

```
def fun (n):
```

```
    if (n > 100):
```

```
        return n - 5
```

```
return fun (fun (n+11))
```

```
print (fun (45))
```

- (i) 50
- (b) 100
- (c) 74
- (d) Infinite loop

12. What happens if the base condition isn't defined in recursive programs?

- (a) Program gets into an infinite loop
- (b) Program runs once
- (c) Program runs n number of times, where n is the argument given to the function
- (d) An exception is thrown

13. What is the default return value for a function that does not return any value explicitly?

- (a) None
- (b) int
- (c) double
- (d) null

14. Which of the following items are present in the function header?

- (a) function name only
- (b) both function name and parameter list
- (c) parameter list only
- (d) return value

15. Which of the following keywords marks the beginning of the function block?

- (a) func
- (b) define
- (c) def
- (d) function

16. What is the name given to that area of memory, where the system stores the parameters and local variables of a function call?

- (a) a heap
- (b) storage area
- (c) a stack
- (d) an array

17. Pick one the following statements to correctly complete the function body in the given code snippet.

```
def f(number):  
    # Missing function body  
print(f(5))
```

- (a) return "number"
- (b) print(number)
- (c) print("number")
- (d) return number

18. Which of the following function headers is correct?

- (a) def f(a = 1, b):
- (b) def f(a = 1, b, c = 2):
- (c) def f(a = 1, b = 1, c = 2):
- (d) def f(a = 1, b = 1, c = 2, d):

19. Which of the following statements is not true for parameter passing to functions?

- (a) You can pass positional arguments in any order.
- (b) You can pass keyword arguments in any order.
- (c) You can call a function with positional and keyword arguments.
- (d) Positional arguments must be before keyword arguments in a function call.

20. Which of the following function calls can be used to invoke the below function definition?

```
def test(a, b, c, d)
```

- (a) test(1, 2, 3, 4)
- (b) test(a = 1, 2, 3, 4)
- (c) test(a = 1, b = 2, c = 3, 4)
- (d) test(a = 1, b = 2, c = 3, d = 4)

21. Which of the following function calls will cause Error while invoking the below function definition?

```
def test(a, b, c, d)
```

- (a) test(1, 2, 3, 4)
- (b) test(a = 1, 2, 3, 4)
- (c) test(a = 1, b = 2, c = 3, 4)
- (d) test(a = 1, b = 2, c = 3, d = 4)

22. What is a variable defined outside all the functions referred to as?

- (a) A static variable
- (b) A global variable
- (c) A local variable
- (d) An automatic variable

23. What is a variable defined inside a function referred to as

- (a) A static variable
- (b) A global variable

- (c) A local variable
- (d) An automatic variable

24. Carefully observe the code and give the answer.

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

- (a) indentation Error
- (b) cannot perform mathematical operation on strings
- (c) hello2
- (d) hello2hello2

25. What is the result of this code?

```
def print_double(x):  
    print(2 ** x)  
print_double(3)
```

- (a) 8
- (b) 6
- (c) 4
- (d) 10

26. What is the order of resolving scope of a name in a Python program?

(L: Local namespace, E : Enclosing namespace, B: Built-In Namespace, G: Global namespace)

- (a) BGEL
- (b) LEGB
- (c) GEBL
- (d) LBEG

27. Which of the given argument types can be skipped from a function call?

- (a) positional arguments
- (b) keyword arguments
- (c) named arguments
- (d) default arguments