Functions, Theoretical Test

**1. What is the purpose of a Python function?**

A: To store variables

B: To repeat code multiple times

C: To organize code into reusable blocks

D: To perform mathematical calculations

**2. What does this Python code snippet calculate?**

Картина, която съдържа текст, Шрифт, екранна снимка

Описанието е генерирано автоматично

A: None

B: 15

C: 7.5

D: 3.0

**3. What is the purpose of parameters in a function definition?**

A: To specify the return value of the function

B: To provide input data to the function

C: To define local variables within the function

D: To control the execution flow of the function

**4. What happens if a function is called with fewer arguments than specified in its definition?**

A: Python automatically generates additional arguments

B: Python raises a runtime error

C: The missing arguments are set to None

D: The function executes with default values for the missing arguments

**5. What will be result of this code?**

Картина, която съдържа текст, екранна снимка, Шрифт

Описанието е генерирано автоматично

A: 25

B: 5

C: 130

D: 120

**6. What is a recursive function?**

A: A function that calls itself

B: A function that returns a boolean value

C: A function that executes in reverse order

D: A function that iterates over a sequence

**7. How do you call a function in Python?**

A: By using the call keyword followed by the function name

B: By using the execute keyword followed by the function name

C: By using the function name followed by parentheses and any required arguments

D: By using the run keyword followed by the function name

**8. What is the purpose of the return statement in a function?**

A: To terminate the function execution

B: To print output to the console

C: To specify the function's input parameters

D: To return a value from the function

**9. What is the difference between a function definition and a function call?**

A: A function definition defines the behavior of a function, while a function call executes that behavior.

B: A function definition executes the behavior of a function, while a function call defines that behavior.

C: There is no difference; both terms refer to the same action.

D: A function definition defines input parameters, while a function call provides actual arguments

**10. Which of the following is not a valid way to define a Python function?**

A: def my\_function(): pass

B: def my\_function(arg1, arg2=10): pass

C: def my\_function(\*args, \*\*kwargs): pass

D: def my\_function(arg1=10, arg2): pass

**11. What is the main difference between a positional argument and a keyword argument in a function call?**

A: Positional arguments are passed based on the position, while keyword arguments are passed with explicit parameter names.

B: Positional arguments must always be strings, while keyword arguments can be any type.

C: Positional arguments are passed last, while keyword arguments are passed first.

D: There is no difference between the two.

**12. What does the following Python code do?**

Картина, която съдържа текст, Шрифт, екранна снимка

Описанието е генерирано автоматично

A: Throws a TypeError because 'message' is missing

B: Prints Hello, Alice!

C: Prints , Alice!

D: Returns None

**13. BONUS QUESTION -> What is the output of the following Python code that calculates the base 10 logarithm of 100?**

Картина, която съдържа текст, екранна снимка, Шрифт

Описанието е генерирано автоматично

A: 3

B: 6

C: 5

D: Error

**14. BONUS QUESTION -> What is the output of the following Python code?**

Картина, която съдържа текст, Шрифт, екранна снимка

Описанието е генерирано автоматично

A: True

B: False

C: Error

D: None

**15. 😈 DEVIL QUESTION 😈**

Картина, която съдържа текст, Шрифт, екранна снимка

Описанието е генерирано автоматично

A: [8, 8, 8, 8, 8]

B: [0, 1, 4, 9, 16]

C: [8, 10, 12, 14, 16]

D: [0, 2, 4, 6, 8]

**16. 😈 DEVIL QUESTION 😈**

Картина, която съдържа текст, екранна снимка, Шрифт

Описанието е генерирано автоматично

A: Before calling function After calling function 10

B: Before calling function 10 After calling function

C: 10 Before calling function After calling function

D: Before calling function 10

**17. 😈 DEVIL QUESTION - What does the \*args syntax in a function definition allow you to do 😈**

A: Pass a list of arguments

B: Pass a dictionary of arguments

C: Pass a variable number of arguments

D: Return multiple values

Картина, която съдържа текст, екранна снимка, Шрифт, дизайн

Описанието е генерирано автоматично**18. 😈 DEVIL QUESTION - What will be the output of the following code? 😈**

A: 5

B: 10

C: None

D: Error