|  |  |  |
| --- | --- | --- |
| **Question 1** |  | 1 / 1 point |

\_\_\_\_\_\_\_\_ is the process of inspecting data that has been input into a program in order to ensure that the data is valid before it is used in a computation.

Question options:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | | A) | Correcting input | | |
|  | |  |  | | --- | --- | | B) | Input validation | | |
|  | |  |  | | --- | --- | | C) | Correcting data | | |
|  | |  |  | | --- | --- | | D) | Data validation | | |
| **Question 2** |  | 1 / 1 point | |

What type of loop structure repeats the code a specific number of times?

Question options:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | | A) | number-controlled loop | | |
|  | |  |  | | --- | --- | | B) | Boolean-controlled loop | | |
|  | |  |  | | --- | --- | | C) | count-controlled loop | | |
|  | |  |  | | --- | --- | | D) | condition-controlled loop | | |
| **Question 3** |  | 1 / 1 point | |

A variable used to keep a running total is called a(n) \_\_\_\_\_\_\_\_\_\_.

Question options:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | | A) | running total | | |
|  | |  |  | | --- | --- | | B) | total | | |
|  | |  |  | | --- | --- | | C) | accumulator | | |
|  | |  |  | | --- | --- | | D) | summer | | |
| **\*\*\*Question 4** |  | 0 / 1 point | |

In Python, a comma-separated sequence of data items that are enclosed in a set of brackets is called

Question options:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | | A) | sequence | | |
|  | |  |  | | --- | --- | | B) | value | | |
|  | |  |  | | --- | --- | | C) | List??? | | |
|  | |  |  | | --- | --- | | D) | variable | | |
| **Question 5** |  | 1 / 1 point | |

Reducing duplication of code is one of the advantages of using a loop structure.

Question options:

|  |  |  |
| --- | --- | --- |
|  | True | |
|  | False | |
| **Question 6** |  | 1 / 1 point | |

Which of the following is **not** an augmented assignment operator?

Question options:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | | A) | **\*=** | | |
|  | |  |  | | --- | --- | | B) | **+=** | | |
|  | |  |  | | --- | --- | | C) | **/=** | | |
|  | |  |  | | --- | --- | | D) | **<=** | | |
| **Question 7** |  | 1 / 1 point | |

A(n) \_\_\_\_\_\_\_\_ structure is a structure that causes a statement or a set of statements to execute repeatedly.

Question options:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | | A) | decision | | |
|  | |  |  | | --- | --- | | B) | sequence | | |
|  | |  |  | | --- | --- | | C) | module | | |
|  | |  |  | | --- | --- | | D) | repetition | | |
| **Question 8** |  | 1 / 1 point | |

What will be displayed after the following code is executed?  
**count = 4  
while count < 12:  
   print("counting")  
   count = count + 2**

Question options:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | | A) | **counting counting** | | |
|  | |  |  | | --- | --- | | B) | **counting  counting counting counting** | | |
|  | |  |  | | --- | --- | | C) | **counting counting counting** | | |
|  | |  |  | | --- | --- | | D) | **counting counting counting counting** | | |
| **Question 9** |  | 1 / 1 point | |

In a flowchart, both the decision structure and the repetition structure use a diamond symbol to represent the condition that is tested.

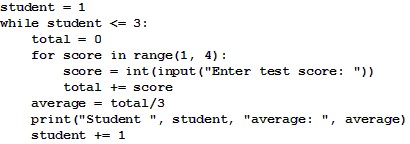
Question options:

|  |  |  |
| --- | --- | --- |
|  | True | |
|  | False | |
| **Question 10** |  | 0 / 1 point | |

To get the total number of iterations in a nested loop, add the number of iterations in the inner loop to the number in the outer loop.

Question options:

|  |  |  |
| --- | --- | --- |
|  | True | |
|  | False | |
| **\*\*\*Question 11** |  | 0 / 1 point | |

What does the following program do?  


Question options:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | | A) | It accepts 3 test scores for each of 3 students and outputs the average for each student. | | |
|  | |  |  | | --- | --- | | \*\*\*B) | It accepts one test score for each of 3 students and outputs the average of the 3 scores. | | |
|  | |  |  | | --- | --- | | C) | It accepts 4 test scores for 3 students and outputs the average of the 12 scores. | | |
|  | |  |  | | --- | --- | | D) | It accepts 4 test scores for 2 students, then averages and outputs all the scores. | | |
| **Question 12** |  | 1 / 1 point | |

What are the values that the variable **num** contains through the iterations of the following **for** loop?  
**for num in range(2, 9, 2):**

Question options:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | | A) | **1, 3, 5, 7, 9** | | |
|  | |  |  | | --- | --- | | B) | **2, 4, 6, 8** | | |
|  | |  |  | | --- | --- | | C) | **2, 3, 4, 5, 6, 7, 8, 9** | | |
|  | |  |  | | --- | --- | | D) | **2, 5, 8** | | |
| **Question 13** |  | 0 / 1 point | |

A **while** loop is called a pretest loop because the condition is tested after the loop has had one iteration.

Question options:

|  |  |  |
| --- | --- | --- |
|  | True | |
|  | False | |
| **Question 14** |  | 1 / 1 point | |

In Python, an infinite loop usually occurs when the computer accesses an incorrect memory address.

Question options:

|  |  |  |
| --- | --- | --- |
|  | True | |
|  | False | |
| **\*\*\*Question 15** |  | 0 / 1 point | |

When will the following loop terminate?  
**while keep\_on\_going != 999:**

Question options:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | | A) | when **keep\_on\_going** refers to a value less than **999** | | |
|  | |  |  | | --- | --- | | B) | \*\*\*when **keep\_on\_going** refers to a value not equal to **999** | | |
|  | |  |  | | --- | --- | | C) | when **keep\_on\_going** refers to a value greater than **999** | | |
|  | |  |  | | --- | --- | | D) | when **keep\_on\_going** refers to a value equal to **999** | | |
| **\*\*\*Question 16** |  | 0 / 1 point | |

The first operation is called the \_\_\_\_\_\_\_\_ and its purpose is to get the first input value that will be tested by the validation loop.

Question options:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | | A) | first input | | |
|  | |  |  | | --- | --- | | B) | loop validation | | |
|  | |  |  | | --- | --- | | C) | loop set read | | |
|  | |  |  | | --- | --- | | D) | priming read | | |
| **Question 17** |  | 1 / 1 point | |

The integrity of a program's output is only as good as the integrity of its input. For this reason, the program should discard input that is invalid and prompt the user to enter valid data.

Question options:

|  |  |  |
| --- | --- | --- |
|  | True | |
|  | False | |
| **Question 18** |  | 1 / 1 point | |

Which of the following represents an example to calculate the sum of numbers (that is, an accumulator), given that the number is stored in the variable **number** and the total is stored in the variable **total**?

Question options:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | | A) | **total = number** | | |
|  | |  |  | | --- | --- | | B) | **total += number** | | |
|  | |  |  | | --- | --- | | C) | **number += number** | | |
|  | |  |  | | --- | --- | | D) | **total + number = total** | | |
| **Question 19** |  | 1 / 1 point | |

In a nested loop, the inner loop goes through all of its iterations for each iteration of the outer loop.

Question options:

|  |  |  |
| --- | --- | --- |
|  | True | |
|  | False | |
| **Question 20** |  | 1 / 1 point | |

What will be displayed after the following code is executed?  
**total = 0  
for count in range(4,6):  
   total += count  
print(total)**

Question options:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | | A) | **4 9** | | |
|  | |  |  | | --- | --- | | B) | **9** | | |
|  | |  |  | | --- | --- | | C) | **4 5** | | |
|  | |  |  | | --- | --- | | D) | **4 5 6** | | |
| **Question 21** |  | 1 / 1 point | |

What type of loop structure repeats the code based on the value of Boolean expression?

Question options:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | | A) | Boolean-controlled loop | | |
|  | |  |  | | --- | --- | | B) | count-controlled loop | | |
|  | |  |  | | --- | --- | | C) | number-controlled loop | | |
|  | |  |  | | --- | --- | | D) | condition-controlled loop | | |
| **Question 22** |  | 1 / 1 point | |

A good way to repeatedly perform an operation is to write the statements for the task once and then place the statements in a loop that will repeat as many times as necessary.

Question options:

|  |  |  |
| --- | --- | --- |
|  | True | |
|  | False | |
| **Question 23** |  | 0 / 1 point | |

Both of the following **for** clauses would generate the same number of loop iterations.  
**for num in range(4):  
for num in range(1, 5):**

Question options:

|  |  |  |
| --- | --- | --- |
|  | True | |
|  | False | |
| **Question 24** |  | 1 / 1 point | |

What will be displayed after the following code is executed?  
**total = 0  
for count in range(1,4):  
   total += count  
print(total)**

Question options:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | | A) | **1  3 6** | | |
|  | |  |  | | --- | --- | | B) | **5** | | |
|  | |  |  | | --- | --- | | C) | **6** | | |
|  | |  |  | | --- | --- | | D) | **1 4** | | |
| **Question 25** |  | 1 / 1 point | |

What are the values that the variable **num** contains through the iterations of the following **for** loop?  
**for num in range(4):**

Question options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | A) | **1, 2, 3** | |
|  | |  |  | | --- | --- | | B) | **0, 1, 2, 3** | |
|  | |  |  | | --- | --- | | C) | **1, 2, 3, 4** | |
|  | |  |  | | --- | --- | | D) | **0, 1, 2, 3, 4** | |