Web, Programming, and Database Foundations

CTI 110 Ch 4 Quiz Questions

**Question 1**

What is the structure that causes a statement or a set of statements to execute repeatedly?

|  |  |  |
| --- | --- | --- |
|  |  | sequence |
|  |  | decision |
|  |  | module |
|  |  | repetition |

True/False: 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):

 True

 False

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

|  |  |  |
| --- | --- | --- |
|  |  | condition-controlled loop |
|  |  | number-controlled loop |
|  |  | count-controlled loop |
|  |  | Boolean-controlled loop |

When will the following loop terminate?

|  |  |  |
| --- | --- | --- |
|  |  | When keep\_on\_going refers to a value less than 999 |
|  |  | When keep\_on\_going refers to a value greater than 999 |
|  |  | When keep\_on\_going refers to a value equal to 999 |
|  |  | When keep\_on\_going refers to a value not equal to 999 |

True/False: In a nested loop, the inner loop goes through all of its iterations for every single iteration of an outer loop.

 True

 False

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

|  |  |  |
| --- | --- | --- |
|  |  | priming read |
|  |  | first input |
|  |  | loop set read |
|  |  | loop validation |

Which of the following represents an example to calculate the sum of the numbers (accumulator)?

|  |  |  |
| --- | --- | --- |
|  |  | total + number = total |
|  |  | number += number |
|  |  | total += number |
|  |  | total = number |

True/False: 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 correct data.

 True

 False

True/False: In flowcharting, the decision structure and the repetition structure both use the diamond symbol to represent the condition that is tested.

 True

 False

What is the disadvantage of coding in one long sequence structure?

|  |  |  |
| --- | --- | --- |
|  |  | Duplicated code makes the program faster to write. |
|  |  | Writing a long sequence of statements is error prone. |
|  |  | If parts of the duplicated code have to be corrected, the correction has to be made many times. |
|  |  | It does not make use of decision structures. |

In Python, the variable in the forclause is referred to as the \_\_\_\_\_\_\_\_ because it is the target of an assignment at the beginning of each loop iteration.

|  |  |  |
| --- | --- | --- |
|  |  | target variable |
|  |  | loop variable |
|  |  | for variable |
|  |  | count variable |

True/False: The first line in the while loop is referred to as the condition clause.

 True

 False

What are the values that the variable numcontains through the iterations of the following **for**loop?

|  |  |  |
| --- | --- | --- |
|  |  | 2, 3, 4, 5, 6, 7, 8, 9 |
|  |  | 2, 5, 8 |
|  |  | 2, 4, 6, 8 |
|  |  | 1, 3, 5, 7, 9 |

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

|  |  |  |
| --- | --- | --- |
|  |  | sequence |
|  |  | variable |
|  |  | value |
|  |  | list |

True/False: Functions can be called from statements in the body of a loop, and loops can be called from the body of a function.

 True

 False

What is the format for the while clause in Python?

|  |  |  |
| --- | --- | --- |
|  |  | while condition |
|  |  | while condition : |
|  |  | while condition statement |
|  |  | while condition : statement |

True/False: To get the total number of iterations of a nested loop, multiply the number of iterations of all the loops.

 True

 False

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

|  |  |  |
| --- | --- | --- |
|  |  | condition-controlled loop |
|  |  | number-controlled loop |
|  |  | count-controlled loop |
|  |  | Boolean-controlled loop |

True/False: In Python, an infinite loop usually occurs when the computer accesses the wrong memory address.

 True

 False

True/False: A better 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 the statements as many times as necessary.

 True

 False

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

|  |  |  |
| --- | --- | --- |
|  |  | Input validation |
|  |  | Correcting data |
|  |  | Data validation |
|  |  | Correcting input |

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

|  |  |  |
| --- | --- | --- |
|  |  | accumulator |
|  |  | total |
|  |  | running total |
|  |  | grand total |

True/False: Reducing duplication of code is one of the advantages of using a loop structure.

 True

 False

What is not an example of an augmented assignment operator?

|  |  |  |
| --- | --- | --- |
|  |  | \*= |
|  |  | /= |
|  |  | -= |
|  |  | <= |

What are the values that the variable num contains through the iterations of the following forloop?  
https://faytechcc.blackboard.com/courses/1/142962/ppg/pearson/tm/sp3g/f10g1q6g1.gif

|  |  |  |
| --- | --- | --- |
|  |  | 1, 2, 3, 4 |
|  |  | 0, 1, 2, 3, 4 |
|  |  | 1, 2, 3 |
|  |  | 0, 1, 2, 3 |