1. Create an assert statement that throws an AssertionError if the variable spam is a negative integer.

A : assertspam <0 .’The spam is a negative number’

2. Write an assert statement that triggers an AssertionError if the variables eggs and bacon contain strings that are the same as each other, even if their cases are different (that is, 'hello' and 'hello' are considered the same, and 'goodbye' and 'GOODbye' are also considered the same).

A : assert eggs.lower() == bacon.lower(), ‘The eggs and bacon are same’

Assert eggs.upper() == bacon.upper() , ‘The eggs and bacon are same’

3. Create an assert statement that throws an AssertionError every time.

A : assert False, ’Wrong input’

4. What are the two lines that must be present in your software in order to call logging.debug()?

A: import logging

logging.basicConfig(level=logging.DEBUG, format=' %(asctime)s -

%(levelname)s - %(message)s')

5. What are the two lines that your program must have in order to have logging.debug() send a logging message to a file named programLog.txt?

A : import logging  
  
logging.basicConfig(filename='programLog.txt', level=logging.DEBUG,  
  
format=' %(asctime)s - %(levelname)s - %(message)s')

6. What are the five levels of logging?

A : Five level are : DEBUG, INFO, WARNING, ERROR, and CRITICAL

7. What line of code would you add to your software to disable all logging messages?

A : logging.disable(logging.CRITICAL)

8.Why is using logging messages better than using print() to display the same message?

A : logging provides timestamp and output can be disabled with out any change to function block

9. What are the differences between the Step Over, Step In, and Step Out buttons in the debugger?

A : Step in – will move the debugger into function call

Step out – executes the rest of code quickly until it gets out of the function.

Step over – executes the function call without stepping into it

10.After you click Continue, when will the debugger stop ?

A : After it has reached end of program line or line with a break point

11. What is the concept of a breakpoint?

A : Line of code that causes debugger to pause when reached