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

*spam= -1*

*#if condition returns False, AssertionError is raised:*

*assert spam >0, "spam is a negative integer"*

1. 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).

*eggs= "abcd"*

*bacon="ABcd"*

*assert eggs.casefold() != bacon.casefold() , "Both are same"*

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

assert False , " throws an AssertionError every time "

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

**import** logging

logging.basicConfig

1. 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?

import logging

logging.basicConfig(filename='C:\\logging\\ programLog.log',level = logging.DEBUG)

1. What are the five levels of logging?

logger.debug("debug Message")

logger.info("information")

logger.warning("Warning")

logger.error("Erro divide by 0")

logger.critical("Internet is down")

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

logging.disable(level=CRITICAL)

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

For simple scripts print() is good but critical complex applications logging is very helpful

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

The step Over goes over the function

The Step in goes through each line of function

The Step out comes out of the function.

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

step through the code following this statement, and continue running without the debugger using the continue command.

11. What is the concept of a breakpoint?

You can use breakpoint commands to start your program up again.

This function drops you into the debugger at the call site. Specifically, it calls sys.breakpointhook(), passing args and kws straight through. By default, sys.breakpointhook() calls pdb.set\_trace() expecting no arguments.