Name:_______ **SOLUTION** ________ CM: _________ Section: _____ Grade: ________ of 10

[Students, for ALL of these questions, **the important thing is to be sure that you know the answers, via the Answer Key** as well as other sources. Your own answers can be brief if you like.]

1. ***When is Exam 1? How long is it?*** Exam 1 becomes available to you **Friday, June 18, at noon**. You may start it any time between then and **Tuesday, June 22, at 11:59 p.m.** (If your travel/vacation schedule makes that difficult, discuss alternative arrangements with your instructor.)

   The exam has two parts: a **Paper-and-Pencil part**, and an **on-the-Computer part**. You may take these parts at different times if you wish. **For each part,** you may use **up to 3 hours** working on that part.

2. How do I get, take and turn in the exam? **Session 7 in our Moodle course** contains instructions for how to obtain, take and turn in each part of the exam.

3. What 3 things must I complete as my ***Admission Ticket*** for taking Exam 1?

   (a) The PyCharm project **05a-Debugging**.

   (b) The PyCharm project **05b-Exam1Practice**. (If you run out of time, you may skip *problem5b* in module *problem5*, although it is an excellent problem.)

   (c) The **Paper-and-Pencil Practice Problems** (available in Moodle Session 6).

   "Completing" the PyCharm problems means doing them all and passing all the tests. Get help from your instructor if there are any that you are struggling to complete!

   "Completing" the Paper-and-Pencil problems includes checking your own answers with the Answer Key and turning in your solution, both in Moodle Session 6.

   If you fail to complete the Admission Ticket, you may NOT take Exam 1. (If it comes to this, talk with your instructor.)

   In addition to the above 3 items, we strongly encourage you to at least READ the **Paper-and-Pencil Sample Exam**, along with its solutions, available from Moodle Session 6.

4. When taking Exam 1, may I discuss the Exam with ANYONE other than my instructor and those whom my instructor explicitly allows (e.g. the other instructor)? **Yes** [✓ ***No***] (circle your choice)

5. After taking Exam 1, may I discuss it with any student who has NOT taken it? **Yes** [✓ ***No***] (circle your choice)

6. For the ***Paper-and-Pencil*** part of the exam, may I use:

   a. A ***Hint Sheet*** that is a single 8.5 x 11-inch sheet of paper, with whatever I want on it, typed or handwritten or a combination of the two? [✓ ***Yes***] **No** (circle your choice)

   b. Blank sheets of paper for scratch work? [✓ ***Yes***] **No** (circle your choice)

   c. Other written materials? **Yes** [✓ ***No***] (circle your choice)

d. My computer other than for the mechanics of taking the exam and asking my instructor questions? **Yes** [✓ ***No***] (circle your choice)

7. For the ***On-the-Computer*** part of the exam, may I use:

   a. Anything on my computer, including my PyCharm exercises? [✓ ***Yes***] **No** (circle your choice)

   b. Blank sheets of paper for scratch work? [✓ ***Yes***] **No** (circle your choice)

   c. Written materials, including Hint Sheets and any textbook(s), that I bring to the exam? [✓ ***Yes***] **No** (circle your choice)

   d. The CSSE 120 materials directly reachable from our Moodle Course, e.g. the videos, answers to quizzes, etc.? [✓ ***Yes***] **No** (circle your choice)

   e. The internet other than for the above and for the mechanics of taking the exam and asking my instructor questions? **Yes** [✓ ***No***] (circle your choice)

   f. Any Google-search or the like on the internet? **Yes** [✓ ***No!***] (circle your choice)

8. Where are the Paper and Pencil practice problems for Exam 1? Where are their solutions?

   Moodle Session 6.

9. Where is the document named *Questions that students frequently wish that they could ask when taking Exam 1*? Should I ***read (or at least skim) that document before the exam***?

   Moodle Session 6. Yes, read (or at skim) it before the exam. You may refer to it during the On-the-Computer part of the exam.

10. May I use that document during the Paper-and-Pencil part of the exam? **Yes** [✓ ***No***] (circle your choice)

11. May I use that document during the On-the-Computer part of the exam? [✓ ***Yes***] **No** (circle your choice)

12. How many pages may I use for my "Hint Sheet" for the Paper and Pencil part of Exam 1? One 8.5 x 11 sheet of paper.

13. [✓ ***True***] / False (circle your choice): When my program runs but a test fails, I should ***re-work the first failed test by hand,*** confirm that my by-hand computation agrees with the expected answer in that failed test case, and then trace my code to find the first place where my by-hand computation gives a different result than the code does?

14. [✓ ***True***] / False (circle one): When my program runs but a test fails, adding *print* statements to my code at carefully chosen places may help me see if the computer is doing what I thought it should do.

15. When my program runs but a test fails, how should I decide where to put print statements? How should I decide what they should print? [Students: **do not bother to write an answer to this question**; instead, THINK about the answer, then compare your thoughts to the answer key.]

    Review the V**ideos/Reading in Moodle, Session 5, on Debugging.** Note: The only thing that is "hard" about the On-the-Computer part of Exam 1 is debugging any errors that you make. Debugging is hard! **The materials in Session 5 are terrific resources for getting better at debugging, *especially if you have not had to do much debugging in your own solutions so far.***

16. [Skip this item this summer if you wish.] As best you reasonably can, communicate with a few other students in the class. Brainstorm ideas for what might be helpful to put on your Hint Sheet for the Paper and Pencil part of Exam 1. Write your ideas below.

    Many possibilities including:

    - Your solutions to problems from the excellent paper and pencil quiz from Session 5.
    - Your solutions to the problems labelled KEY problems in the practice Paper-and-Pencil problems.
    - Examples of how `for k in range(blah):` works.
    - Definitions and examples of ***constructing instances*** of a class; ***calling methods*** of an object; ***accessing instance variables*** of an object.
    - The distinction between the notations for ***calling a function*** and ***calling a method***.
    - Examples of ***summing***, ***counting***, and ***accumulating in graphics***.
    - Examples of ***tracing code by hand***.
    - The distinction between ***RETURN*** and ***PRINT***.
    - ***What constitutes a TEST of a function.***
    - What is a Unit Test? Why do Unit Tests?
    - What is Test-First Programming? Why do it?