Data Structures Name -
Ch. 2 Sections 5-7 Worksheet #1

Label and answer the following on lined paper or a typed document.

Section 2.5

1. List and briefly describe (in a few sentences for each) the 6 phases of the software system life cycle.
2. What types of activities normally occur during the maintenance phase of the software life cycle?
3. Why is data abstraction a useful tool for software engineers to use to develop large (thousands of lines of code) programs?
4. What does it really mean to "define a problem" during the analysis phase of the software system life cycle?
5. What are the responsibilities of a systems analyst? Be complete.
6. Why is the memo from a high school principal on p. 124 not appropriate as a set of specifications for a potential AP Data Structures programming assignment?
7. What is a user requirements specification? Be complete.

Section 2.6

1. What is CRC modeling? Completely describe all three parts. Research the topic on the Internet to completely answer the question. Show diagrams or illustrations of CRC cards if possible. Make sure that you identify all terms that a Visual Basic or AP C++ student might not know.

Section 2.7

1. According to Frederick Brooks, how much time should be devoted to each of the four phases that he identifies of a development project?
2. What is the difference between component and system testing? Note the role of driver programs and stubs.
3. What is the difference between white box and black box testing? Be complete.