Does It Work? Test and Test Again Lesson – Reading Assessment Worksheet – Answers

1. Explain how testing fits into the software/systems design process.

   Testing is a critical component of the design process. To properly test software, a mini-design process must be completed to fully understand how to test and create the specific tests needed to adequately test the designed program.

2. Explain why testing is critical to the successful completion of a quality result.

   Testing enables software designers to see if a newly designed solution really addresses the identified problem; it is absolutely essential that the design be properly tested to minimize errors in the future.

3. Explain why tests for a section of a program should include normal cases, edge cases, and error cases.

   For normal cases: these test that the code actually does what it is supposed to do. For edge cases: these cases are where the code is most likely to contain mistakes, so they should be tested more thoroughly than normal cases. For error cases: the test should confirm that the program does something reasonable (which might be just giving an error message) rather than trying to return a nonsensical answer.

4. How do these fit into "designing" a quality software test?

   These cases are part of the analysis phase of the design cycle. In the analysis phase, the software designer must decide what cases are required to adequately test the software. Without proper testing, the software will not be adequate for large scale usage by consumers.