1. Is unit testing possible or even desirable in all circumstances? Provide examples to justify your answer.

2. Who should perform the validation test - the software developer or the software user? Justify your answer.

3. Myers uses the following program as a self-assessment for your ability to specify adequate testing: A program reads three integer values. The three values are interpreted as representing the lengths of the sides of a triangle. The program prints a message that states whether the triangle is scalene, isosceles, or equilateral. Develop a set of test cases that you feel will adequately test this program.

4. Give at least three examples in which black-box testing might give the impression that "everything's OK", while white-box tests might uncover an error. Give at least three examples in which white-box testing might give the impression that "everything's OK", while black-box tests might uncover an error.

5. Will exhaustive testing (even if it is possible for very small programs) guarantee that the program is 100 percent correct?

6. Why do we have to retest subclasses that are instantiated from an existing class, if the existing class has already been thoroughly tested? Can we use the test-case design for the existing class?

7. What is the difference between thread-based and use-based strategies for integration testing? How does cluster testing fit in?

8. Which errors tend to be more serious - client-side errors or server-side errors? Why?

9. Assume that you are developing an online pharmacy (YourCornerPharmacy.com) that caters to senior citizens. The pharmacy provides typical functions, but also maintains a database for each customer so that it can provide drug information and warn of potential drug interactions. Discuss any special usability tests for this WebApp.

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10. What is the difference between load testing and stress testing?

*Submission:* Please, submit your homework in pdf! Login to any Linux workstation in the CS department. Use cs435submit command to submit your files. The syntax of the cs435submit command is as follows:

```
cs435submit [files]
```

This command will remove what you have submitted to cs435 previously, and re-submit the files or directories to the cs435.

Example:

```
cs435submit hw4.zip
```

To see what you have submitted:

```
cs435submit
```