1. (6 points) Brooks names “conformity” as one part of the “irreducible essence of modern software systems”. Explain what he means by conformity.

2. (6 points) Why might it be surprising to some people that most people employed as computer programmers in the United States are in-house staff writing programs for internal use?

3. (6 points) Within the context of requirements engineering, what is the primary purpose of creating a prototype?

4. (6 points) Parnas and Randell describe software engineering using a sentence that includes the prefix “multi-“. Write down the complete sentence.
5. (9 points) Imagine that you are writing the Requirements Specification for the EEE DropBox. For this system, make up an example (using one sentence each) of
   - a functional requirement
   - a non-functional requirement
   - a design constraint

6. (6 points) What is the primary characteristic of the Waterfall Model of software development?

7. (6 points) Following the thinking of Brooks in *No Silver Bullet*, give an example of an accidental aspect of software.

8. (6 points) In the Requirements phase of software development, what purpose is served by identifying and writing down use cases? (Prof. Frost and the textbook are not in complete agreement on this, so bonus point for explaining their different perspectives.)
9. (6 points) What are informally referred to as the “ilities”? Give both a definition and an example.

10. (6 points) Name one of the top three failure factors for software projects, according to the Chaos report cited in the textbook.

11. (6 points) Name and briefly define the two main tasks of requirement analysis.

12. (6 points) What role does Brooks see, in No Silver Bullet, for rapid prototyping as a potential “silver bullet”?
13. (8 points) Who are the two audiences of a requirements specification document? Briefly explain the needs of each audience.

14. (9 points) In lecture it was mentioned that a requirements specification document might actually be part of a contract. If that were the case, what effect would being part of a contract have on how the document was written?

15. (8 points) What would be an advantage of planning software development with the Incremental Software Process Model, in comparison to the Waterfall model?