ELEE 390 B – Developing Concurrent Software – Quiz

Please answer each question as completely as possible.

**Name:**

1. Briefly describe the Von Neumann architecture (you may draw a picture if necessary).

2. What is “the free lunch” and why is it over?

3. Describe one benefit of distributed version control systems over client-server version control systems.

4. What is the three-step process of Test Driven Design? Include the color associated with each step.

5. What is Dennard Scaling?

6. What is one reason Dennard Scaling is ending (we mentioned two reasons in class)?

7. What is the difference between a process and a thread?

8. What technique do we use to ensure that the join method will be called on a std::thread instance?

9. What is the purpose of a mutex object?

10. How can a deadlock occur?