# EECE 412, Fall 2012

## Quiz #5

**This quiz consists of 6 pages. Please check that you have a complete copy. You may use both sides of each sheet if needed.**

Your Family name:    _____

Your Given name:    _____

Your student ID:    _____

Name of your left neighbor:  _____

Name of your right neighbor: _____

| # | Points | Out of |
|---|--------|--------|
| **1** | | **3** |
| **2** | | **3** |
| **3** | | **4** |
| **4** | | **5** |
| **5** | | **7** |
| **TOTAL** | | **22** |

---

**ATTENTION: When necessary, make reasonable assumptions and state them clearly in your solutions.**

Notes:

**1.** Make sure your handwriting is legible. If the teaching staff does not understand what your wrote, they mark your answer as if the unreadable text is missing.

**2.** Aim to be precise and to the point. The experience of teaching this course since 2004 suggests that excessively long answers tend to correlate with lower marks.

**3.** As in real world, stated questions and/or accompanied descriptions in this quiz are often open-ended and one has to make assumptions in order to answer them. If you do make assumptions, state them clearly and explicitly.

**4.** The mark for this quiz will be pro-rated. That is, the best answer receiving 100% and the marks for all other answers being pro-rated accordingly. So, don't panic if you feel like you are severely short on time. Everybody is. ☺

1. **(3 points) What are the top three types of bugs that are reported to Mozilla Corporation (1 point)? Briefly explain these vulnerabilities (2 points).**
   (presentation by Yvan Boily, Mozilla Corp.)

2.  **(3 points) What are the eight ways to exploit a "zombie" PC that make it valuable for criminals?** (presentation by Dmitriy Samosseiko, Sophos Labs)

3.  **(4 points) - What is phishing attack (2 points)? Why are users so vulnerable to such attack (2 points)?**

4. **(5 points) - Explain the following principles of secure systems (proposed by Lee, 2002).**

**Path of least resistance**

**Active Authorization**

**Revocability**

**Visibility**

**Self-awareness**

**Trusted path**

**Expressiveness**

**Relevant Boundaries**

**Identifiability**

**Foresight**

5. **(7 points) Assume you want to study the usability of three user interfaces for managing access to Facebook photo albums. The first interface shows the list of users who have access to the album on the sidebar when you enter the album. The second interface shows the list of users under the album name, and the third interface offers a control center with the list of all albums and users in a matrix.**

   a. **(4 points) If you want to compare the efficiency of setting access control policy using each interface, which of the following approaches would you use and why? (1) Field study (2) Lab study (3) Heuristic Evaluation (4) Survey. Justify your answer.**

   b. **(1 point) What will be your independent and dependent variables in the study?**

   c. **(2 points) Should the study design use within-subjects or between-subjects approach? Justify in one or two sentences why.**