Quiz 3 Fall 2013 – EECE 512 – UBC November 21, 2013

Candidate's name:

Candidate's student number:

Candidate's signature:

Remarks

- 1. No books, notes, or any other devices with text storage or communication capabilities are allowed.
- 2. Be brief and to the point.
- 3. There are seven questions on this quiz. Each question is 5 points. Five best answers will be counted.
- 4. The maximum score possible on this quiz is 25.
- 5. The duration of this quiz is 50 minutes.

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1. Why did the authors of "Strengthening User Authentication through Opportunistic Cryptographic Identity Assertions" choose NOT to use a Near Field Communication (NFC) smartcard or dedicated token for the communication channel between the user's phone and the PC?

2. Why an adaptive password-strength meter is better in classifying passwords than a simpler scheme that classifies passwords as weak by counting the number of times a curtain password is present in the password database?

3. What are the stages in a typical attack profile, identified by the analysis of exploitation behaviors on the Web?

4. A telemetry study by Akhawe and Felt discovered that Google Chrome users were about 2 times more likely to click through an SSL warning than Mozilla Firefox users. What are the five passible causes for such a difference that their paper discusses? 5. What's the intuition behind the method for determining *authentication points* in "Adaptive Defences for Commodity Software ..." paper? 6. Explain the differences and similarities in the risks between 'wake-up' and 'bubble-up' modes of the meters that support automatic meter reading.

7. What are the capabilities that an adversary is assumed to have during the attack in order to conduct a *delay attack* on a real-time pricing system in a smart-grid?