

## **Assignment 8— Chapters 17-20**

CptS 427/527— Computer Security

Assigned: 13 November 2013

Due: 22 November 2013, 4:15 pm

Explain and/or justify all of your answers. Short answers are sufficient, but one-word (e.g., ‘yes’, ‘no’) answers will not receive full credit. State any assumptions that you make.

### **Chapter 17**

Answer the following questions from the Exercises (pgs 329-330).

15 Pts Question 17.1

15 Pts Question 17.7

20 Pts Why are policy, mechanisms, and assurance needed to establish trust? Is it possible to trust an inanimate object?

### **Chapter 18**

15 Pts What is formal evaluation? Why are formal evaluation methodologies used? What are their limitations?

### **Chapter 19**

15 Pts List and define the three major types of malicious logic.

10 Pts Present an argument for the statement that Trojan horses are worse than viruses.

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15 Pts Identify three significant lessons that can be learned from Thompson’s compiler regarding assurance, trust, or evaluation.

### **Chapter 20**

15 Pts What are the three classes of attackers that must be considered during penetration testing?

15 Pts Can penetration testing prove that a system is secure? Why?