

CS 5323 SPRING 2018 EXAMINATION 1
PROF. RAVI SANDHU
DUE MONDAY FEB 26, 2018 BY MIDNIGHT CENTRAL

- Each examination is to be solved by students individually. Students can access whatever material they choose but cannot discuss with **anyone**.
- It is highly unlikely that web browsing will effectively help with the solution. Anything you find on the web may well be wrong and too complicated. Spend more time and effort thinking. Don't waste all your time browsing. Some browsing is appropriate and should help craft a good answer.
- If your answer is based on material you found elsewhere, you must cite the source. No penalty for using an external source. Failure to cite a source is an act of academic misconduct.

- I am not looking for a specific or "correct" answer. I am looking for demonstration that you can think through the question and answer it coherently based on my lectures and supporting material. I have not thought through what my own answer to these questions might be. I am interested in seeing what answers the class can come up with.

- If you have doubts about the meaning of any of the questions, note that in your answer and explain how you understood the question.
- Discussion and mention of irrelevant issues will be penalized.
- Use of incorrect and sloppy English will be penalized.

Answer all questions. All questions have equal weight.
Each question has maximum 1/2 page allowance for answer in 11 point font single space.
You are not required to use the full space.
A significantly shorter answer is likely to be inadequate.

The Solms-Niekerk-2013 paper and the Sandhu-et-al-2013 paper are provided in the class website.

Submission Guidelines

- **Solutions are to be submitted by email in pdf to ravi.utsa@gmail.com with**
 - **subject title "Exam 1: <lastname, firstname>"**
 - **name of attached file: "Exam 1: <lastname, firstname>.pdf"**

- **Text must be typed. Hand drawn figures are acceptable if appropriate but must be scanned and incorporated in submitted pdf. Figures must fit within the specified size limit for the entire answer.**

1. Discuss the following 2 assertions in context of Figures 1 and 2 of the Solms-Niekerk-2013 paper.
 - a. Information security depends upon ICT security
 - b. ICT security depends upon information security
2. Propose another cyber security scenario (which is not information security) different from those in Section 3 of the Solms-Niekerk-2013 paper.
3. The concept of usage discussed in slides 9, 10 and 11 of Lecture 1 (Jan 11, 2018) is not mentioned as such in the Solms-Niekerk-2013 paper. Discuss some aspects of the paper where this concept may be relevant.
4. Suppose you are reviewing this paper to suggest improvements to the authors of the Solms-Niekerk-2013 paper. Discuss what you would consider to be the 2 most important improvements.
5. Consider the concepts of Information Assurance and Mission Assurance as discussed in Sections 2 and 3 of the Sandhu-et-al-2010 paper. How would you relate these to the concepts of the Solms-Niekerk-2013 paper? Discuss.