



Assignment 1: Chapter 1 - Computer Security Introduction and Review

Total Points: 100; **and Deadline:** January/28/2023, 11:59 PM.

Note – Cheating and Plagiarism: Cheating and plagiarism are not permitted in any form and they cause certain penalties. The instructor reserves the right to fail culprits.

Deliverable: All of your responses to the questions of assignment should be included in a single compressed file to be uploaded to the Gannon University (GU) – Blackboard Learn environment.

Question. Provide short answers (i.e., no more than five lines on average with the font size of 12) for the following items. The grade for each item is **10 points**.

1. Define “**Computer Security**”.
2. Specify the relationship between security and reliability/robustness for a computing system.
3. Determine whether the following statement is true or false, and the reason for either case: “All flaws in a computer system are in fact different kinds of attacks”.
4. Define “**Access Control**”.
5. Explain “**Access Control Matrix**” using an example.
6. Mention the similarities and the differences between “**Access Control Matrix**” and “**Security Policies**”.
7. Discuss usages of “**Symmetric Cryptography**” and “**Public-Key Cryptography**” in security applications.
8. Specify what hash function is and explain the relationship between a hash function and a message digest.
9. Describe the processes for using digital certificates.
10. If there is no way to tell for sure that the information provided on the certificate is authentic, then provide a usable solution for it to some guarantee of trust.