CS 5352/6352 Computer Security

Homework 1
Elaborately explain in your own words (30 pts)

1. Explain briefly the CIA triad of computer security. Can we survive with any two of the triad leaving the third one? Explain your reasoning with examples.

2. Why is computer security so challenging? Who are the attacker agents that we defend against?

3. Define vulnerability, threat and control. Give your own example to explain them.

4. What is the difference between hub and switch? From the security perspective, which one is preferable and why?

5. Briefly mention the 7 layers of OSI model and functionality of each layer. Imagine you are sending a confidential message to your friend via a chat application. Using the knowledge of layers, explain how this communication will take place through the network.