CS 490-002/590-001 Network Security
Fall 2019
Quiz #1 on August 26, 2019 (SOLUTIONS)

Your Last Three Digits: _______________
(please do NOT write all of your student ID or your name)

Grade: ______

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(1) What are the three major threats in network security (as well as computer security)?

- Confidentiality
- Integrity
- Availability

(2) What is “network security”?

Security regarding any activities that are performed for networks.

(3) Is “network security” possible without “computer security”?

No (not possible) since network security depends on computer security.
(4) What is symmetric cryptography?

Symmetric cryptography is a type of cryptography which uses the same key for both encryption and decryption (the information encrypted by a key can be decrypted by the same key).

(5) What is the disadvantage in asymmetric cryptography? What is the advantages of asymmetric cryptography?

Disadvantage:
Encryption and decryption take time = “slow” (compared to those activities in “asymmetric cryptography”)

Advantage:
① Easy to securely pass a public key to other party
② Only one pair of a secret and public keys are needed to take care of a large number of users.