

Homework 3

Due: Tuesday 10/24 @ 2:30pm (beginning of class)

- 1) Define a cryptographic checksum and then describe the 3 steps it takes to ensure the integrity of a file. (10pts)
- 2) How do signature – based and heuristic – based virus scanners differ? (10pts)
- 3) What is the function of a proxy – server? (5pts)
- 4) a. Describe the types of activity a heuristic – based IDS looks for.
b. How does this differ from a signature – based IDS? (5pts)
- 5) What are some limitations of a heuristic – based method? (5pts)
- 6) You can describe a MAC address as a unique identifier.
 - a. Why is this the case?
 - b. How would you describe an IP address? (5pts)
- 7) What are the 7 layers of the OSI (network) Stack? (5pts)
- 8) List and describe the 3 types of network connection devices. Be sure to include the OSI layer associated with each device. (10pts)
- 9) What is the 3 – way handshake and how does it work? (15pts)
- 10) What is a DNS and what does it mean when we say it is a distributed system? (10pts)
- 11) Answer questions 1 – 20 on pages 48 – 51 of your textbook. (20pts)