

## Tutorial Sheet Week 4

### Question 1

Why is it good practice to rebuild a firewall before it is installed?

### Question 2

You are to do a Risk Analysis for the online banking system of a large national bank. What is the risk associated with the following events? Which would you devote most effort and funding to prevent? (Assume the bank is considering a network redesign.)

- a. Phishing for customer accounts and PINs.
- b. Transaction website hacked
- c. Transaction database hacked
- d. Denial of Service attack on transaction website

### Question 3

Suppose we have a stateful packet filter firewall that validates the three-way handshake in a TCP connection

- a. What states will the firewall record for each step of the three-way handshake?
- b. Write packet filtering rules for each state.

(For simplicity we do not consider direction or source address in answering this question).

Suggestion:

Construct a table that has the following columns:

State	SYN set	ACK set	Action	New state