Please answer the following questions:

1) How does a view enhance the security of a database? (10 pts)

A view can provide restricted access to a relational database so that a user or application only has access to certain rows and/or columns.

2) How does inference bypass your database security? (10 pts)

It allows unauthorized information to be deduced from legitimate queries.

3) Why do we not just encrypt the entire database to enhance security? (10 pts)

Performance, inability to do searching.

4) What is the network layer in the OSI protocol stack responsible for? (10 pts)

Handles routing among nodes within a packet-switched network
5) What are the four phases a typical virus goes through? (20 pts)

Dormant phase, propagation phase, triggering phase, execution phase

6) What is a logic bomb? (10 pts)

Code inserted into a system by malware that triggers on a predetermined condition.

7) How does a polymorphic virus defeat detection? (10 pts)

By changing its signature, usually through encryption.

8) What are the four generations of anti-virus software? (20 pts)

Simple scanners, heuristic scanners, activity trapping, combined approach