Homework #3
(Due on 12:00am, Thursday, Nov. 17th, 2011)

1.   Please briefly describe the learning process that a switch uses to fill its tables.

2.   What are the main purposes of the following devices: hub, switch, and router? What are the differences between a switch and a router?

3.   Why does PPP not need to provide error correction/recovery, flow control, etc.?

4.   Please explain the Hidden Terminal Problem.

5.   Consider the IEEE 802.11 MAC Protocol: How does CSMA/CA tackle the problem of collisions (what steps are taken at the sender and receiver respectively)? What is the idea behind the RTS/CTS concept?