Chapter 6: Hints & Answers

6.4 Approximately 10 frames per second.

6.8 $p = 1/2$.

6.10 Hint: You will need to show how the frames generated at a given station appear after a certain delay at the other stations.

6.11 a = 3.1 ms/0.7 seconds.

6.14 (b) X_{eff} = 10.1 ms for d = 25 m and R = 10 Mbps.

6.16 (b) Maximum frame arrival rate is 2492 frames/second for multitoken operation.

6.23 We obtain 0 for every information symbol. Why?

6.26 For FDMA total packet delay = 0.02 seconds.

6.30 (b) An interesting variation considers the effect of peer-to-peer file sharing: suppose that 25% of the homes have users downloading 1 Mbyte files at the same time and that we would like each file to be downloaded in 1 minute. How does this compare with the MPEG traffic?

6.37 a = 0.122 for 512 byte frame.

6.39 For M = 64 and R = 16 Mbps, the ring latency is 24 microseconds.

6.41 FDDI can support up to 287 stations.

6.46 Remember to show the contents of the frame control field of each frame.

6.49 The duration of the contention free period is 7756 microseconds.

6.53 For a repeater we have $N \leq 80$.