Home Work #2, Computer Networks,
Fall 2006 Due Date: 10/25/2006 (5x100=500)
Topics: (Media, Codes) [11-14 optional, answer 15-20]

11. PROBLEM 2-36
12. PROBLEM 2-40
13. PROBLEM 2-44
14. PROBLEM 2-54
15. PROBLEM 2-58
16. PROBLEM 3-2
17. PROBLEM 3-6
18. PROBLEM 3-10
19. PROBLEM 3-14
20. PROBLEM 3-16

Home Work #3, Computer Networks,
Fall 2006 Due Date: 10/25/2006 (10x100=1000)
Topics: (flow control, aloha, wireless) [answer all]

21. PROBLEM 3-20
22. PROBLEM 3-28
23. PROBLEM 3-32
24. PROBLEM 4-2
25. PROBLEM 4-6
26. PROBLEM 4-10
27. PROBLEM 4-22
28. PROBLEM 4-28
29. PROBLEM 4-30
30. PROBLEM 4-36

Home Work #4, Computer Networks,
\Fall 2006 Due Date: 11/15/2006 (10x100=1000)
Topics: (forwarding, routing, IP) [answer all]

31. PROBLEM 5-2
32. PROBLEM 5-6
33. PROBLEM 5-10
34. PROBLEM 5-12
35. PROBLEM 5-16
36. PROBLEM 5-34
37. PROBLEM 5-40
38. PROBLEM 5-42
39. PROBLEM 5-44
40. PROBLEM 5-48

Home Work #5, Computer Networks, [VVI: Submit to TA]
Fall 2006 Due Date: 11/27/2006 [10x100=1000]
Topics: (TCP, congestion control) [answer all]

41. PROBLEM 6-2
42. PROBLEM 6-4
43. PROBLEM 6-8
44. PROBLEM 6-16
45. PROBLEM 6-24
46. PROBLEM 6-30
47. PROBLEM 6-36
48. PROBLEM 5-24
49. PROBLEM 5-26
50. PROBLEM 5-30

HOME WORK ASSIGNMENT#1

[C#5 Network Layer]

Due Date October 4, 2006 (10x100=1000 points)

CS 4/55201 COMPUTER NETWORKS

Fall 2006, Department of Computer Science, Kent State University

1. Discover what you can find out about the network technologies that are used in our department. (a) Identify the types of hardware, links, switches and routers. (b) Identify the high level protocols those are supported, (c) Sketch the network topology, and (d) Estimate thee number of hosts those are connected.

2. (CH-1, P-1) Imagine that you have trained your St. Bernard, Bernie, to carry a box of three 8mm Exabyte tapes instead of a flask of brandy (When your disk fills up, you consider it an emergency). These tapes each contain 7gigabytes of data. The dog can travel to your side, wherever you may be at 19km/hour. For what range of distance does Bernie have a higher data rate than a 155 Mbps ATM line?

3. (CH-1, P-6)

4. CH-1, P-28)

5. (CH-2, P-14) The 66 low-orbit satellites in the Irridium project are divided into six necklaces around the earth. At the altitude they are using, the period is 90 minutes. What is the average interval for handoffs for a stationery transmitter?

6. (CH-2, P-34)

7. In most networks, the data link layers handles transmission by requesting damaged frames to be retransmitted. If the probability of a frame's being damaged is p, what is the mean number of transmissions required to send a frame if acknowledgements are never lost?

8. Compute the Fourier coefficients for the function f(t)=t (0<=t<=1).

9. If a binary signal is sent over a 3-kHz channel whose signal-to-noise ratio is 20dB, what is the maximum achievable data rate?

10. CHAPTER-2, P-19