MANIPAL INSTITUTE OF TECHNOLOGY
(Constituent Institute of Manipal University)
MANIPAL-576104

V semester BE Degree End sem Exam
Dec2010
SUBJECT: Computer Communication And Networks CSE309

TIME: 3 Hr   **MAX.MARKS: 50**

Note: Answer any Five

1. a) Mention some of the popular uses of the Internet for home users with
      example.   4
   b) Compare connection oriented and connectionless service.   2
   c) Discuss the characteristics that distinguish optical fiber from twisted pair or
   co axial cable.   4

2. a) Explain with necessary diagram TCP/IP reference model.   5
   b) Explain transmission characteristics of satellite transmission.   3
   c) A receiver has an effective noise temperature of 294K and 10MHz
   bandwidth. What is the thermal noise level at the receiver output?.   2

3. a) Explain the encoding techniques of transmitting digital data using
      analog signals using necessary diagram.   6
   b) Why the conversion of raw bit streams into frames at DLL is necessary?
   Explain   2
   c) Define synchronous and asynchronous transmission.   2

4. a) Explain Sliding window flow control and derive utilization factor. 5
   b) What are the two types of errors occur during transmission of frames? 3
   c) Why data link protocols always put checksum in a trailer rather than in a
   header?   2

5. a) Explain synchronous TDM system with neat diagram.   5
   b) Why WLAN uses CSMA/CA but not CSMA/CD? Justify   2
   c) Illustrate Binary countdown protocol.   3

6. a) With neat diagram explain MAC sub layer protocol and derive channel

efficiency. 5

b) Illustrate Distance Vector routing Algorithm. 3

c) For given Ethernet LAN the operating speed has been increased from 10Mbps to 100Mbps. Find the minimum length of data. 2

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