Bachelor of Science (Information technology)
Annual Examination – 2006

Paper BITD – 303
Computer Network

Time allowed: Three hours Maximum Marks: 100

Attempt any ten questions. All question carry equal marks.

1. Discuss basic data communication system with the help of suitable block diagram.
2. Explain the following terms:-
   (i) Transmitter (ii) Receiver (iii) Frequency (iv) Bandwidth
3. Distinguish between terms domain representation and frequency domain representation of signal. Also discuss how to convert one representation to another and vice-versa.
4. What do you mean by data rate? Discuss the relationship between data rate and bandwidth for both noiseless and noisy channels.
5. Distinguish between the following:-
   (i) Analog transmission and digital transmission.
   (ii) Analog signaling and digital signaling.
6. Explain the various modulation techniques with the help of suitable examples.
7. Write shorts notes on the following:-
   (i) Modem (ii) CODEC
8. What do you mean by transmission impairment? Discuss in detail.
9. (a) What is computer Network? Explain with the help of suitable diagram.
   (b) Distinguish between data and signal with the help of suitable examples.
10. Explain OSI reference model.
11. What is fiber optics? Explain its working and characteristic.
12. Discuss Magnetic Media.
13. (a) Distinguish between UTP and STP cables.
    (b) Explain how the following cables are made.
        (i) Straight through.
        (ii) Cross over.
        (iii) Roll over.
14. (a) Distinguish between OSI reference model and TCP/IP model.
    (b) Distinguish between Baseband and Broadband coaxial cables.
15. (a) Distinguish between bit rate and band rate with the help of suitable examples.
    (b) Distinguish between Manchester and Differential Manchester encoding.