

B 2279

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2007.

Fifth Semester

Information Technology

IF 352 — COMPUTER NETWORKS

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is data encoding? Name few data encoding methods.
2. Define Modem and Multiplexing.
3. List out few internetworking devices.
4. What is congestion? What are the causes of congestion in the network?
5. Compare X.25 and Frame relay protocol stack.
6. What are the characteristics of virtual channel connections?
7. List out few IEEE 802 standards with its name.
8. What are the advantages of slotted ALOHA over ALOHA?
9. What are the important functions of presentation layer?
10. Define Encryption and Decryption. What are the main types of encryption?

PART B — (5 × 16 = 80 marks)

11. (a) State and explain various transmission media in detail. (16)
- Or
- (b) Explain the following :
 - (i) Error detection and correction. (8)
 - (ii) Digital subscriber line. (8)

12. (a) Describe OSI layered architecture with its functions. (16)

Or

(b) (i) What is Routing? (2)

(ii) Explain the following Routing Algorithms.

(1) Distance vector routing. (7)

(2) Link state routing. (7)

13. (a) Explain the Frame relay operation, layers and traffic control. (16)

Or

(b) Explain the ATM architecture, switching and layers service classes. (16)

14. (a) Explain the following :

(i) Ethernet. (4)

(ii) Token bus. (4)

(iii) Token Ring. (4)

(iv) FDDI. (4)

Or

(b) Discuss the Wireless LAN and ATM LAN. (8 + 8)

15. (a) Explain the following :

(i) FTP. (6)

(ii) Electronic Mail. (5)

(iii) Virtual Terminal. (5)

Or

(b) State and explain transport layer issues and session layer synchronization. (16)