

B.Tech. Degree VII Semester Examination
November 2005

IT/CS/EC 701 COMPUTER NETWORKS
(2002 Admissions onwards)

Time: 3 Hours

Maximum Marks: 100

- I a) Briefly explain the TCP/IP reference model and functions of each layer. (10)
b) Briefly explain the BISDN and ATM reference model. (10)
OR
- II a) Briefly explain the OSI-ISO reference model and functions of its layers. (12)
b) Explain the following:
i) X.25 networks ii) frame relay (4 x 2 = 8)
- III a) Explain the sliding window protocol with example. (14)
b) Discuss and differentiate the functions of hubs, bridges and switches. (6)
OR
- IV a) What is ARP? Explain its functions in detail. (8)
b) Explain and compare:
i) TDM ii) FDM
iii) CDMA (12)
- V a) Explain briefly how multicast routing is used in internet. (14)
b) Explain the purpose of RIP and OSPF protocols (6)
OR
- VI a) Explain IPV₄ datagram format. (10)
b) Discuss the inter autonomous system routing protocol BGP in detail. (10)
- VII a) What is UDP? Explain its segment structure. (8)
b) Discuss the causes and cost of congestion and TCP congestion control algorithm. (12)
OR
- VIII a) What is TCP? Explain with diagram the TCP segment structure. (12)
b) Explain how TCP connection management is implemented. (8)
- IX a) Explain in detail how SNMP is used to manage the network. (10)
b) What is Digital Signature? Explain briefly how it is implemented. (10)
OR
- X a) Explain Domain Name System. Explain how file is transferred using FTP. (12)
b) Explain RSA and DES cryptographic algorithms. (8)