

***B. Tech Degree VII Semester Examination
November 2006***

EB/EI/EE 701 COMPUTER COMMUNICATION AND NETWORKS
(2002 Admission Onwards)

Time : 3 Hours

Maximum Marks : 100

- I. (a) What is the need of layering approach in Computer Network? (8)
(b) Briefly explain ISO-OSI layers and their functions. (12)
- OR**
- II. (a) Explain various network topologies. (10)
(b) Explain the service primitives based on a layer of ISO-OSI model. (10)
- III. (a) Differentiate between full duplex and half duplex links. (5)
(b) Write notes on
(i) Terminal handling (ii) Polling
(iii) Multiplexing and concentration (3 x 5 = 15)
- OR**
- IV. (a) Explain HDLC protocol with its frame format. (8)
(b) Explain sliding window protocol using selective repeat. (12)
- V. (a) Explain any one congestion control algorithm. (10)
(b) Discuss any one IEEE standard protocol developed for LAN topology. (10)
- OR**
- VI. (a) Differentiate between virtual circuits and datagram subnets. (5)
(b) Discuss the difference between adaptive and non-adaptive routing. Explain any one adaptive routing algorithm. (10)
(c) Differentiate between base band and broadband transmission. (5)
- VII. (a) Explain the connection establishment and release in TCP. (10)
(b) Explain different functions of session layer. (10)
- OR**
- VIII. (a) What are the similarities and differences between a session and a transport connection? (6)
(b) What is the need of buffering? Explain. (6)
(c) Write notes on client-server model. (8)
- IX. (a) Discuss virtual terminal in detail. (10)
(b) Explain briefly different data compression techniques. (10)
- OR**
- X. (a) Write short notes on:
(i) FTP (ii) Electronic-mail (5)
(b) What do you mean by public key cryptography? Explain an algorithm which uses public key cryptography. (10)
(c) Explain briefly how presentation layer provide Network security. (5)