

*Syllabus* : Evolution of computer networks; Data link layer: Framing, HDLC, PPP, sliding window protocols, medium access control, Token Ring, Wireless LAN; Virtual circuit switching: Frame relay, ATM; Network Layer: Internet addressing, IP, ARP, ICMP, CIDR, routing algorithms (RIP, OSPF, BGP); Transport Layer: UDP, TCP, flow control, congestion control; Introduction to quality of service; Application Layer: DNS, Web, email, authentication, encryption.

*Texts* :

1. L. L. Peterson and B. S. Davie, Computer Networks: A Systems Approach, 4th Ed, Elsevier India, 2007.
2. A. S. Tanenbaum, Computer Networks, 4th Ed, Pearson India, 2003.

*References* :

1. J. F. Kurose and K. W. Ross, Computer Networking: A Top Down Approach, 3rd Ed, Pearson India, 2005.
2. D. E. Comer, Internetworking with TCP/IP Vol. 1, 5th Ed, Prentice Hall of India, 2006.
3. S. Keshav, An Engineering Approach to Computer Networking, 1st Ed, Pearson India, 1999.
4. B. Forouzan, Data Communications and Networking, 4th Ed, Tata Mcgraw Hill, 2006.