### Subject Code/ Name: CS2302/Computer Networks

Staff Name : Ms. N. Kavitha

Semester / Year : V / III

Syllabus:

UNIT I   
Network architecture – layers – Physical links – Channel access on links – Hybrid  
multiple access techniques - Issues in the data link layer - Framing – Error correction  
and detection – Link-level Flow Control  
  
UNIT II   
Medium access – CSMA – Ethernet – Token ring – FDDI - Wireless LAN – Bridges and  
Switches  
UNIT III   
Circuit switching vs. packet switching / Packet switched networks – IP – ARP – RARP –  
DHCP – ICMP – Queueing discipline – Routing algorithms – RIP – OSPF – Subnetting  
– CIDR – Interdomain routing – BGP – Ipv6 – Multicasting – Congestion avoidance in  
network layer  
UNIT IV   
UDP – TCP – Adaptive Flow Control – Adaptive Retransmission - Congestion control –  
Congestion avoidance – QoS  
UNIT V   
Email (SMTP, MIME, IMAP, POP3) – HTTP – DNS- SNMP – Telnet – FTP – Security –  
PGP - SSH  
TOTAL: 45 PERIODS  
TEXT BOOK :  
1. Larry L. Peterson, Bruce S. Davie, “Computer Networks: A Systems Approach”,  
Third Edition, Morgan Kauffmann Publishers Inc., 2003.  
REFERENCES:  
1. James F. Kuross, Keith W. Ross, “Computer Networking, A Top-Down Approach  
Featuring the Internet”, Third Edition, Addison Wesley, 2004.  
2. Nader F. Mir, “Computer and Communication Networks”, Pearson Education, 2007  
3. Comer, “Computer Networks and Internets with Internet Applications”, Fourth Edition,  
Pearson Education, 2003.  
4. Andrew S. Tanenbaum, “Computer Networks”, Fourth Edition, 2003.  
5. William Stallings, “Data and Computer Communication”, Sixth Edition, Pearson  
Education, 2000