### 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