CS2363 COMPUTER NETWORKS L T P C

3 0 0 3

UNIT I 9

Introduction to networks – network architecture – network performance – Direct link networks – encoding – framing – error detection – transmission – Ethernet – Rings – FDDI - Wireless networks – Switched networks – bridges

UNIT II 9

Internetworking – IP - ARP – Reverse Address Resolution Protocol – Dynamic Host Configuration Protocol – Internet Control Message Protocol – Routing – Routing algorithms – Addressing – Subnetting – CIDR – Inter domain routing – IPv6

UNIT III 9

Transport Layer – User Datagram Protocol (UDP) – Transmission Control Protocol – Congestion control – Flow control – Queuing Disciplines – Congestion Avoidance Mechanisms.

UNIT IV 9

Data Compression – introduction to JPEG, MPEG, and MP3 – cryptography – symmetric-key – public-key – authentication – key distribution – key agreement – PGP – SSH – Transport layer security – IP Security – wireless security – Firewalls

UNIT V 9

Domain Name System (DNS) – E-mail – World Wide Web (HTTP) – Simple Network Management Protocol – File Transfer Protocol (FTP)– Web Services - Multimedia Applications – Overlay networks

L = 45 T = 15 TOTAL = 60 PERIODS

TEXT BOOK:

1.Larry L. Peterson and Bruce S. Davie, “Computer Networks: A Systems Approach”,

Fourth Edition, Elsevier Publishers Inc., 2007.

REFERENCES:

1. James F. Kuross and Keith W. Ross, “Computer Networking: A Top-Down Approach

Featuring the Internet”, Third Edition, Addision wesley, 2004.

2. Andrew S. Tanenbaum, “Computer Networks”, Fourth Edition, PHI, 2003.

3. William Stallings, “Data and Computer Communication”, Sixth Edition, Pearson

Education, 2000.

4. Nader F. Mir, ”Computer and communication networks”, Pearson Education, 2007.