

FBEF 611 COMPUTER NETWORK (3-1-0)

Module – I(14 Hrs)

Overview of Data Communications and Networking. Physical Layer : Analog and Digital, Analog Signals, Digital Signals, Analog versus Digital, Data Rate Limits, Transmission Impairment, More about signals. Digital Transmission: Line coding, Block coding, Sampling, Transmission mode. Analog Transmission: Modulation of Digital Data; Telephone modems, modulation of Analog signals. Multiplexing : FDM , WDM , TDM , Over view of OSI Model .

Module –II (13 Hrs)

Data Link Layer Error Detection and correction: Types of Errors, Detection, Error Correction Data Link Control and Protocols: Flow and Error Control, Stop-and-wait ARQ. Go-Back-N ARQ, Selective Repeat ARQ, HDLC. Point-to –Point Access: PPP Point –to- Point Protocol, PPP Stack, Multiple Access and Random Access.

Module – III (13 Hrs)

Network Layer: Host to Host Delivery: Internetworking, addressing and Routing Network Layer Protocols: ARP, IPV4, ICMP, IPV6 ad ICMPV6 Transport Layer: Process to Process Delivery: UDP; TCP congestion control and Quality of service.

Application Layer :

Client Server Model, Socket Interface, Domain Name System (DNS): Electronic Mail (SMTP) and file transfer (FTP) ,HTTP

Text Books:

1. Data Communications and Networking: Behrouz A. Forouzan, Tata McGraw-Hill, 4thEd
2. Computer Networks: A. S. Tannenbum, D. Wetherall, Prentice Hall, Imprint of Pearson 5thEd

Reference Book :

1. Computer Networks:A system Approach:Larry L, Peterson and Bruce S. Davie,Elsevier, 4thEd
2. Computer Networks: Natalia Olifer, Victor Olifer, Willey India .