Paper-II : Computer Networks

UNIT - I

Introduction to Computer Networks and Internet : Computer Networks , Internet , Network Edge ,

Network Core , Access Networks ,Topologies , The OSI reference model, Function of the layers, History of Computer Network . Applications of computer Network , Types of Network Connections.

UNIT - II

The Physical Layer : Physical Layer and services provided by physical layer, Multiplexing , Type of multiplexing , Switching Networks : Circuit switching , Message switching and Packet switching Networks. Transmission Media.

UNIT - III

The Link Layer and Local Area Networks : Data Link Layer Functions , Flow and error control , Error Detection and Correction, Multiple Access Protocols , Wireless LAN, ATM.

UNIT - IV

The Network Layer : Network Layer , Services provided by Network layer , connection Devices in Network Layer : Repeaters , Bridge , Hubs ,Hub configuration , Routers , Gateway , Switches. routing versus switching.

Network Layer Protocol, Addressing in TCP/IP , Internet Protocol Classes of IP addresses. Special IP addresses.

UNIT - V

The Transport Layer : Transport Service and Services Provided to the Upper Layers , Transport Service Primitives , Elements of Transport Protocols ,The user Datagram Protocol , Principle of Reliable Data Transfer. Transmission Control Protocol , The TCP Connection , Difference between TCP and UDP Protocols , Congestion Control .

Recommended Books :
1. **Data Communication and Networking:- Forouzan Tata McGraw Hill.**
2. **Computer networks :- Tannenbaum**