

# Computer Networks

## UNIT - I

Computer networks, Networks Hardware – Local Area network, Metropolitan Area network, Wide Area network (03). Wireless network, Internetworks (03). Networks Software: Protocol Hierarchies, Design and Issues for layers (02). Interfaces and Services, Connection-oriented and Connectionless Services (03).

Lectures: 11

## UNIT - II

Reference Models, and OSI Reference Model, TCP/IP Protocol Suite (03). The Physical Layer: Maximum Data Rate of a channel, Transmission Media: Magnetic Media, Twisted Pair, Baseband and Broadband Coaxial cable, Fiber Optical (03). Wireless Transmission, structure of telephone system, Switching, Multiplexing, ISDN (04).

Lectures: 10

## UNIT - III

Data link layer, Error control, Flow control, Sliding Window Protocol (04). Channel Allocation Problem, Multiple Access Protocol: ALOHA, CSMA protocol, Collision Free protocol, Polling (04). Network layer: Routing Algorithm, Congestion Control Algorithm, IP protocol, IP Addresses (04).

Lectures: 12

## UNIT - IV

Transport Layer: Addressing, Establishing and releasing a connection (04). TCP service Model, TCP protocol (04). The Application Layer: Network Security, Domain Name System (04).

Lectures: 12