Data Communication and Computer Networks

Unit-1

1. List the Components of a Data Communication System?
2. Explain the various layers present in OSI model and specify their functions?
3. Expalin the various signals in Transmission (analog, digital) and modulation of digital and analog signal ?
4. Discuss in detail about Multiplexing?
5. What is DSL Technology?
6. Define terms: FDM, WDM, and TDM?
7 Define cable modem and sonnet in briefly?

Unit-II

1 Discuss the Data Link Control and Protocols?
2 Explain briefly Error detection and correction?
3 Expalin briefly in LANS?
4 Define 2G, 3G, 4G, 5G wireless Technologies?
5. Discuss in detail about satellite networks?
6 Define Frame relay, ATM, Virtual circuit?

Unit-III

1. Give 3 examples of protocol parameters that might be negotiated when a connection is setup in the network layer?
2. Write the net id, host id and subnet id of the IPADDRESS of 117.34.3.8 and 207.3.54.12?
3 Give brief discussion about the BGP routing protocol with suitable illustration?
4 Discuss in detail about IPV6, IPV4?
5. Give brief discussion about Unicast and Multicast Routing?
6 Discuss in detail about types of Internet Protocols?

Unit-IV

1 what is cryptography? Explain public and private keys to be used for cryptography mechanism?
2 Define transport Layer Protocols UDP, TCP?
3 what is data traffic, Congestion and Control?
4 Discuss in detail about Quality of Service, How to improve QOS discuss techniques?
5 What is key Management and Kerberos?
6 Define i) Digital Signature, ii) User authentication iii) E-mail and iv) Web Security?

Unit-V

1 Explain briefly i) SMTP ii) FTP iii) HTTP iv) WWW v) Video-Conferencing?
2 Discuss in detail about Client-Server model?
3 Discuss in detail about DNS, how the will be distribute in internet illustrate?
4 Define file transfer and access and management?