

BE Semester-VII (EC) Question Bank

Data Communication & Networking

All questions carry equal marks(10 marks)

Q.1	Explain the OSI model for networking in brief. How does it differ from TCP/IP model?
Q.2	Explain the functions of physical layer and Data link layer in brief.
Q.3	Explain the functions of network layer and transport layer in brief.
Q.4	Explain the functions of session layer and application layer in brief.
Q.5	Explain functioning of connection oriented networks X.25 and frame relay in brief.
Q.6	Explain the ATM reference model along with functions of ATM layers.
Q.7	List several transmission media for networking.Explain any two media in brief.
Q.8	Explain the functions of modem in brief.
Q.9	Explain the functioning of Digital Subscriber Line.
Q.10	Write short notes on (1) Wireless in local loop (2) SONET/SDH.
Q.11	Compare circuit switching with packet switching.
Q.12	Write short notes on (1) Advanced Mobile Phone System (2) Global System for Mobile Communications
Q.13	Explain the concept of CDMA.
Q.14	What is framing in data link layer? Explain the different methods of framing in data link layer.
Q.15	Write short notes on (1) flow control in data link layer (2) Error detection and Correction in data link layer.
Q.16	Write short notes on : (1) 1-bit sliding window protocol (2) Go-back N protocol
Q.17	Write short notes on : (1) Protocol using selective repeat (2) Stop and Wait protocol
Q.18	Write short notes on: (1) HDLC (2) PPP
Q.19	What are the key assumptions in dynamic channel allocations in LAN ?
Q.20	Write short notes on Pure and slotted ALOHA.
Q.21	Write short notes on persistent and non persistent CSMA protocols.
Q.22	Explain CSMA with collision detection protocol.
Q.23	Write short notes on (1) A bit map protocol (2) Binary countdown
Q.24	Write short notes on : (1) Adaptive tree walk protocol (2) Wavelength Division Multiple Access Protocol
Q.25	Explain the Wireless LAN protocols in Medium Access Sublayer.
Q.26	Explain (1) Repeater (2) Bridge (3) Router (4) Gateway
Q.27	Compare Virtual circuit subnet and datagram subnet.
Q.28	Write short notes on (1) shortest path routing algorithm (2) Flooding
Q.29	Write short notes on (1) Distance vector routing (2) Link state routing
Q.30	Write short notes on (1) Hierarchical routing (2) Broadcast routing
Q.31	What are the congestion control policies in (1) Data link (2) Network (3) Transport layer ?
Q.32	How is the congestion control done in datagram subnets ?
Q.33	Write a short note on leaky bucket algorithm.

Q.34	Write a short note on fragmentation in network layer.
Q.35	Write short notes on IPv4 and IPv6.
Q.36	Explain connection establishment and connection release in transport layer.
Q.37	Write a short note on e-mail.
Q.38	Write a short note on (1) Voice over IP (2) JPEG.
Q.39	Write short notes on (1) MPEG (2) Video on Demand
Q.40	Write short notes on (1) Symmetric key cryptography (2) Public Key cryptography