

QUESTION BANK

Unit 1: Introduction Concepts

Ques. No.	Question	Marks
1	Define switching.	2
2	Define signals.	2
3	What is ISDN?	2
4	Differentiate between TCP and UDP.	2
5	What is packetizing?	2
6	What is Open System Interconnection?	2
7	What are the different types of networks?	2
8	Explain the types of transmission modes.	2
9	What are analog signals?	2
10	Define forwarding of IP packets?	2
11	Define the functions of Data Link Layer.	5
12	Define topology and mention the types of topologies.	5
13	Differentiate between Analog and Digital signals.	5
14	What are the different types of networks? Explain in detail.	5
15	Differentiate between LAN, MAN and WAN.	5
16	What are the different types of transmission media?	5
17	Classify the different type of switching techniques.	5
18	Categorize different types of Network Topologies.	5
19	Differentiate between propagation delay and transmission delay.	5
20	What is network topology? Explain the different network topologies.	5
21	Differentiate between OSI layer and TCP/IP.	8
22	What is TCP/IP Protocol suite?	8
23	Explain your understanding about OSI and TCP/IP model. Out of these which reference model is being frequently used?	8
24	Explain OSI reference model with the help of a diagram.	8
25	Explain 4 types of delays in computer network.	8
26	What is ISDN? Explain different types of access interfaces used in ISDN.	8
27	What is OSI Model? Explain the functions and protocols and services of each layer?	8

Unit 2: Digital and Analog Transmission

Ques. No.	Question	Marks
1	Which is faster between digital and analog data transmission?	2
2	What is baud rate?	2
3	What is the meaning of FSK?	2
4	What is the best modulation technique?	2
5	What is MODEM?	2
6	What is Modulation?	2
7	What is the meaning of FSK?	2
8	Describe the Pulse Code Modulation (PCM) technique with neat diagram?	5
9	Explain Analog-to-Digital Conversion process with appropriate diagram.	5
10	Explain Phase Modulation technique using graphical representation.	5
11	Explain different techniques used for digital to digital data conversion.	5
12	Explain the terms Line Coding, Block Coding and Scrambling.	5
13	Explain Delta Modulation.	5
14	Define the following terms: Pulse Code Modulation ASK FSK PSK Delta Modulation	5
15	Explain Digital to analog conversion.	5
16	Explain switching methods with appropriate diagram.	5
17	Explain all the protocols in the application layer.	5
18	Explain each and every Modulation Techniques with appropriate example.	8
19	Explain Analog to Digital conversion.	8
20	Explain various modulation techniques.	8
21	Explain each and every Modulation Techniques with appropriate example.	8

Unit 3: Medium Access sub layer

Ques. No.	Question	Marks
1	What is bridge?	2
2	What is a repeater?	2
3	Define the term medium access control mechanism.	2
4	What is a switch?	2
5	Define router.	2
6	What is channel allocation?	2
7	What is more difficult among error detection and error correction? Explain.	2
8	Define ARQ.	2
9	Define Ethernet	2
10	What is Sliding Window Protocol?	2
11	What are the functions of MAC?	5
12	Write short notes on Go-back N protocol.	5
13	Explain the concept of ALOHA.	5
14	Differentiate between Pure ALOHA and Slotted ALOHA.	5
15	Explain (1) Repeater (2) Bridge (3) Router (4) Gateway	5
16	Explain different LAN transmission methods.	5
17	Define the media access schemes used by LAN protocols.	5
18	What is an error ? Explain the types of errors ?	5
19	List any five Networking Connecting Devices with details.	5
20	What are the examples of LAN protocols?	5
21	Explain how errors are detected using CRC.	8
22	Discuss about a) GO BACK NARQ and b) Selective repeat ARQ.	8
23	Explain Token passing protocol with its examples.	8
24	Explain different error detection and correction mechanisms with examples.	8
25	What is ALOHA? Explain its different types.	8
26	Explain the protocols in Data link layer .	8
27	Define Hamming Code? What is the 7 bit Hamming code for 1101?	8
28	Explain the process of error detection using checksum along with an example.	8
29	Calculate the Cyclic Redundancy Code(CRC) for data word: 110010101 with Generator = 10101 then n=5	8
30	Explain various IEEE standards for LAN protocols.	8

Unit 4: Network and Transport Layer

Ques. No.	Question	Marks
1	What is IP address?	2
2	Define Congestion Control?	2
3	What are the responsibilities of network layer?	2
4	Differentiate between IPv4 and IPv6.	2
5	What allows TCP to detect lost segments?	2
6	Which transport layer feature is used to establish a connection-oriented session?	2
7	What is Remote Procedure Call?	2
8	Which transport protocol is used by remote procedure call (RPC)?	2
9	What affects TCP window size?	2
10	Why do we need window management for TCP?	2
11	Difference between public and private IP addresses?	5
12	What is the sequence of events during remote procedure call?	5
13	Write down features of TCP?	5
14	What is TCP/IP? How does it work?	5
15	Why remote procedure call (RPC) doesn't fit in OSI model?	5
16	What is transport layer? Explain in brief.	5
17	Differentiate between TCP and IP.	5
18	Explain the difference between Static and Dynamic IP?	5
19	What is connection? Explain its types.	5
20	Explain the header format of TCP.	5
21	Explain Data Compression and its types.	8
22	What is cryptography? Distinguish between symmetric and asymmetric key cryptography.	8
23	Which mechanism is used for connection establishment?	8
24	Discuss TCP-Window Management System?	8
25	What are the various design issues in Transport and Session layers?	8
26	What are issues and solutions related to TCP in networks?	8
27	Explain the concept of Remote Procedure Calls in computer networks.	8
28	What are the services provided by transport layer? Explain each and every service with appropriate diagram.	8

Unit 5: Application Layer

Ques. No.	Question	Marks
1	What is Electronic Mail in Computer Networks?	2
2	What is Electronic Mail used for?	2
3	What are the advantages of electronic mail in computer networks?	2
4	Differentiate between POP3 and IMAP.	2
5	Explain the term WWW.	2
6	List the request methods used by HTTP.	2
7	What are the functionalities of Application layer?	2
8	What is cryptography?	2
9	Define SSH.	2
10	Differentiate between WWW and W3C.	2
11	Compare FTP and SSH.	8
12	What is Application Layer? What are the different protocols used in Application layer?	8
13	Describe the three protocols used to deliver email over the Internet.	8
14	Explain how the web works.	8
15	How POP3, IMAP and FTP play role in application layer. Explain with proper diagram.	8
16	Describe routing algorithms with appropriate example	8