Unit-1

1) Differentiate between Circuit Switching and Packet Switching.
2) Write a note on switching.
3) Explain the difference between OSI and TCP/IP model.
4) Explain functioning of network & Transport layer in detail in OSI model.
5) Differentiate between half duplex and full duplex channel

6) What is the major difference between a hub and a switch?

7) What is the major difference between a router and a switch?

8) What is prototype layering? What are the principles of protocol layering?

9) Explain the TCP/IP Protocol in brief.

Unit-2

1) What are the Duties of physical layer?

2) Write short note on the Electromagnetic Spectrum.

3) Classification of Computer Networks Transmission medium.

4) Compare UTP vs. fiber optic cable.

5) What is free space optics(FSO)? Explain in detail.

6) Write a note on: UTP (Unshielded Twisted Pair) Cables
7) List the service provided by Data Link Layer.[
8)
9) Explain Propagation mode of Fiber Optic cable.

10) Explain error correction and detection. Also explain types of errors. List error detecting and correcting methods

11) Differentiate between elementary data link layer protocol and sliding window protocol. What is the difference of data structure used in both the protocols type

12) Explain CRC by taking one valid example in polynomial code

13) Explain relationship between Packets and Frames

14) Explain one bit sliding window protocol in detail. Write its advantages
15) Explain difference between one bit sliding window protocol and go back n protocol
16) Explain difference between go back n protocol and selective repeat protocol
17) Explain piggybacking.What is the advantage of Piggybacking?
18) Generate CRC for frame 1101011011 using generator 10011
19) Explain Go back n protocol. Also state its merits and demerits

20) Compute the Hamming code for the bit pattern 1100001
21) Explain error control using parity bit in DLL.
22) Differentiate between non persistent, 1 persistent and p persistent CSMA/CA.
23) **Explain ALOHA and Slotted ALOHA**
24) **Difference between Fast Ethernet** & **Gigabit Ethernet**