Assignments-1

Q.1. Discuss the design issues and importance for the layered architecture of data communication in the network.

Q.2. (a) What are the technical differences between baseband and broadcast co-axial cable transmission mediums?

(b) What is the difference between a passive star and an active repeater in a fiber network? Which one better? Justify it.

Q.3. What are the line codes techniques? What is the important role in the transmission media? Explain and compare the performance of different line codes?

Q.4. Datagram subnet and virtual circuit subnet in terms of effects of router failure and Congestion control.

Q.5. Briefly explain the typical characteristics of a LAN in terms of addressing mechanism, Topology, MAC's protocol channel capacity, cost and application.

Q.6. (a) Discuss the issues of bandwidth and fault tolerance in packet switching and circuit switching.
(b) List and describe five examples of WAN application you have seen.
(c) Why are communication satellites in geosynchronous orbits? What is the prime advantage of LEOS.

Q.7. What are the different types of error detection methods? Explain the CRC error Detection Technique using generator polynomial x^5+x^2+1 and Data 111000101.