

## Assignment 3

1. Define the switching and explain the various methods of it with suitable examples.
2. What are the error and flow control techniques in a network? Explain various ARQ techniques with suitable example.
3. Discuss the issues related to Data Link Layer in detail
4. Explain HDLC.
5. What is SMTP? Explain its various components with suitable examples.

## Assignment 4

1. Compare and contrast CSMA/CD with CSMA/CA
2. Which of the following CRC generators guarantee the detection of a single bit error?  
(i)  $x+1$     (ii)  $x^2+1$
3. Prove that the throughput of Network using slotted ALOHA can be given as  $S = Ge^{-G}$  where G is the load and S is throughput.
4. What are the problems encountered when IEEE 802.4 LAN as source is connected to IEEE 802.3 LAN as destination?
5. Explain the binary exponential back off algorithm?