1. The following data fragment occurs in the middle of a data stream for which the byte-stuffing algorithm described in the textbook is used:

   A B ESC C ESC FLAG FLAG D

   What is the output after stuffing?

2. A coding scheme use one parity bit for checking all odd-numbered bits and one parity bit for checking all even-numbered bits. What is the Hamming distance of this code?

3. Use even-parity Hamming code to encode an 8-bit value: 10101111.

4. Use CRC with general polynomial $x^3+1$ to encode the value: 10101111.

5. Why most DLL protocols put the CRC checksum in a tail?

6. A channel has a bit rate of 4 kbps and a propagation delay of 20msec. If stop-and-wait protocol is used, what is the range of frame sizes that can provide more than 50% efficiency?

7. In IEEE 802.11, how many bits are used to transmit the sequence number? How many bits are used to transmit the checksum? Why stop-and-wait protocol is used in IEEE 802.11?