COE 342, Term 012

Data & Computer Communications

HW# 4

Q.1.   Problem 7.2.

Q.2.   Problem 7.3.

Q.3.   Problem 7.4.

Q.4.   Problem 7.9

Q.5.   Problem 7.11.

Q.6.   Problem 7.17.

Q.7.   Show an HDLC operation chart (similar to Figure 7.12) of the data exchange between Station 1 and Station 2 using the following scenario. State the type of frames exchanged between the two stations, and ignore the initialization frame.

- Station 1 is the sender of data and Station 2 is the receiver of data.
- Sequence number is 3-bit and the window size is 5.
- Station 1 sends frame 0 to frame 3 before receiving an acknowledgment stating that Station 2 has received frame 1.
- Station 1 will not receive a second acknowledgment after that. Its window size becomes 0 and it timeouts.
- When Station 2 knows that Station 1 has timed out, it sends an acknowledgment that it has actually received all the frames that station 1 has sent.
- Station 1 resumes sending the next two frames. These frames are the last two frames to be sent.
- Station 2 detects an error in the frame received before the last frame.
- After all frames are sent correctly, Station 1 sends a DISC frame and Station 2 acknowledges with a UA frame.