Fall 2011
Assignment#2

Please submit a HARDCOPY of your assignment in Class on the due date (No electronic submission).

Chapter#2 and #3

1. What interesting property of physics helps light to be used for communications? Explain with drawing how light travels through fiber optic media.

2. In a Table list the frequency bands used in (a) Satellite, (b) AM Radio, (c) TV and (d) Fiber Optics communications, and (e) X-rays. In the table also show the Time Period and wavelengths of signals at those bands.

3. Read the book and Wikipedia. Explain the advantages of Reed Solomon Code and Low Density Parity Check Codes.

4. Explain how to calculate the CRC code for a frame and how to recover the Frame from this Code. Explain using an example frame "1101011111" and a generator polynomial $G(x) = X^4 + X + 1$.