Tutorial 6   Due Date: 3rd of September

1. Briefly describe the function of the following components of a communications system:
    a) Information Source
    b) Source Encoder
    c) Encryption
    d) Channel Encoding
    e) Multiplexing
    f) Modulation/Demodulation
    g) Multiple Access
    h) Transmitter/Receiver
    i) Information Sink

2. Sketch a typical time domain waveform and frequency spectrum for the following digital modulation techniques:
    a) ASK
    b) FSK
    c) PSK

3. Explain why PSK is the preferred digital modulation technique.

4. Explain the difference between the error correcting methods of ARQ and FEC.

5. The 7,4 Hamming codeword C = 0110101 is received with a single bit error. Determine which bit is in error and find the original 4 data bits that were used to construct the transmitted codeword.