Assignment 1 (EC-262)

Question1. Design a Full subtractor using a 2 to 4 decoder

Question 2. Implement f(A,B,C)=$\sum$m(0,1,3,5,6,7) using 4x1 muliplexer with

    a. AB as select line
    b. AC as select line
    c. BC as select line

Question 3. Convert the following :

    a. Octal to Binary : 1204, 743
    b. Binary to Gray : 11011
    c. Gray to Binary : 11011
    d. Binary to Excess 3 code : 1001 0111
    e. Perform the BCD addition of 365 & 784
    f. Perform the below operation in 2's complement form
        1) (-14)-(36)
        2) -14-(-36)

Question 4. Design a signed bit comparator which compares two sequence of 3 bits.

Question 5. Design a BCD to 7 Segment Decoder. Write down the Boolean expression of all the segments along with their individual truth table.