Assignment 5

1. [6 points]

   a) Convert the binary number $(111.111)_2$ to decimal.

   b) Convert $(16.C)_{16}$ to decimal.

   c) Convert the decimal number 7.625 to binary.

   d) Convert the hexadecimal 3C7F to binary.

   e) Convert the decimal number 23.125 to hexadecimal.

   f) Convert the binary number 1100100010101001 to hexadecimal.

2. [2 points]

   a) Encode the value 96 in two's complement notation using 8 bits.

   b) Encode the value -72 in two's complement notation using 8 bits.

3. [2 points]

   a) Encode the message "Hello, SUSTech!" in ASCII. (Answer in hexadecimal format)

   b) Which of the following is graphic data format? (multiple choices)

      A) PNG   B) PSD   C) GIF   D) SVG   E) JPG   F)BMP   G)RAW