General Instruction

- Allowed submission file type: PDF only

- I recommend that you type your answers to questions by using a word processor (Microsoft word, LibreOffice writer, LaTeX, etc.).

- If you would write your answers to questions on papers, then you can scan them by using a scanner (Not phone/tablet/laptop camera) and convert to a single PDF file (Not separate image files). Please use a pen and make it legible.

- Submit your work in the Dropbox folder via BeachBoard (Not email or in class).

1. (20 points) Assuming the IEEE 754 single precision format.

    i. Decimal representation: a

    ii. Normalized binary representation: $b \times 2^c$

    iii. Exponent bits: d (insert '|' symbol every 4 bits)

    iv. Fraction bits: e (insert '|' symbol every 4 bits)

    v. Hexadecimal representation: f

    (a) (10 points) Find the value of b, c, d, e, and f when you convert the decimal number $a = $ `63.25` to the hexadecimal representation.

    (b) (10 points) Find the value of e, d, c, b, and a when you convert the hexadecimal number $f = $ `0x2e92c3bf` to the decimal representation.