

**ENCS238 (Computer Organization)** 

Spring Semester 2017

ID: .....

1) Represent (-28)<sub>10</sub> as a signed integer with the following representations, using minimum number of bits.

a) Two's complement representation [2pts]

b) Sign magnitude representation [2pts]

c) Bias representation [2pts]

2) Use 8-bit floating-point number representation as shown in the following figure to represent (-3.75)<sub>10</sub> [4pts]

1 bit Sign bit 3 bits exponent	4 bits significant
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