

CE 1911

Homework 1

1 – Write each of the following numbers using the designated representation you must show your work .

20pts

71 (unsigned 8bit binary)

-73(8 bit binary sign magnitude)

-87 (8 bit 1's complement)

-85 (8 bit 2's complement)

75 (BCD)

83 (8 bit 2's complement)

2 – Write each of the numbers in the designated representation in base 10 you must show your work . 20pts

0101 1001 (BCD) → decimal

1110 0111 (1's complement) → decimal

1011 1011 (2's complement) → decimal

1010 0111 (sign/mag) → decimal

1101 1011 (unsigned binary) → decimal

0110 0001 (2's complement) → decimal

3 – Convert the following numbers - you must show your work.

20pts

84 → hex

1001 1111 → hex

0x6D → 8 bit unsigned binary

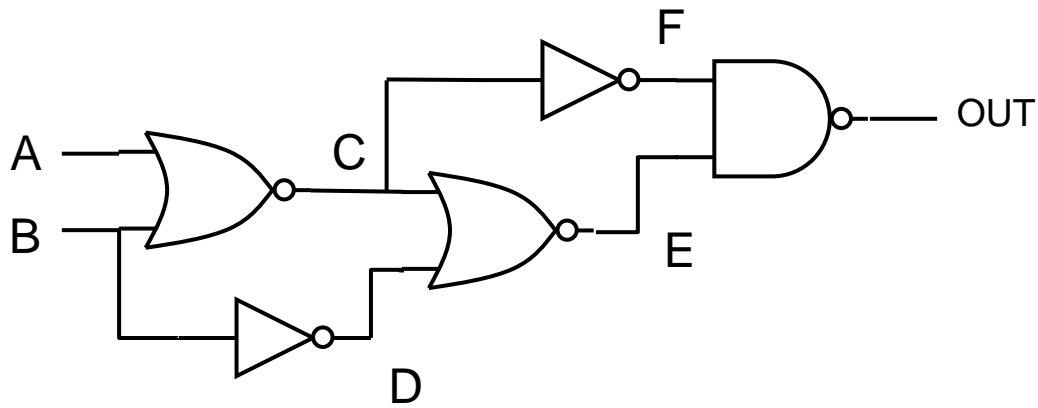
\$C6(2's complement) → decimal

Your student ID # -> hex

be sure to write down your ID #

4 - create a full truth table for the following circuit
(be sure to include all intermediate nodes)

20pts



5 - create a full truth table for the following circuit
(be sure to include all intermediate nodes)

20pts

