CSC 156 **HW 01** **02/07/2017**

Name: _____

Answer the questions on the exam and not on a separate sheet of paper. Please circle your answers and show your work for full credit. There are 4 questions for a total of 20 points.

1. (5 points) Construct a truth table for the following compoing proposition: $(p \to q) \leftrightarrow (\overline{q} \to \overline{p})$.

2. (5 points) Convert the 123 in base ten to base 2, 4, 8, and 16.

3. (5 points) Given the 8 bit string $b = 00110101$, what 8 bit number c is such that $b + c = 00000000$?

4. (5 points) Show that $\neg(P \wedge Q)$ is logically equivalent to $(\neg P) \vee (\neg Q)$.