**Take-Home Quiz 9 (15 pts) – Bits, Bytes, and C Bitwise Operators**

Using Blackboard Learn <https://learn.wsu.edu/webapps/login/> submit your quiz. You will submit your assignment in the ***lab*** Blackboard space. Under the "Content" link navigate to the "Quiz Submissions" folder and upload your solution to the appropriate “Quiz” space. You must upload your solution, through an attachment, as <your last name>\_quiz9.pdf by the due date and time.

1. (2 pts) How many bits are in one byte? \_\_\_\_\_\_8\_\_\_\_\_\_\_\_\_\_\_
2. (2 pts) How many bytes are in 64-bits? \_\_\_\_\_\_8\_\_\_\_\_\_\_\_\_\_
3. (2 pts) What is the largest unsigned number that may be represented by eight bytes? \_\_\_\_\_\_\_2^64 - 1\_\_\_\_\_\_\_\_\_\_
4. (3 pts) What is the result of the following C expression? List your answer in *decimal* form.

45 << 4 \_\_\_\_\_\_\_720\_\_\_\_\_\_\_\_\_

1. (3 pts) What is the result of the following C expression? List your answer in 8-bit *binary* form.

67 >> 2 \_\_\_\_\_\_000100002\_\_\_\_\_\_\_\_\_\_

1. (3 pts) What is the result of the following C expression? List your answer in 4-bit *binary* form.

13 & (~7) \_\_\_\_10002\_\_\_\_\_\_\_\_\_\_\_\_