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

Using Canvas <https://canvas.wsu.edu/>, please submit your solution to the correct quiz folder. Your solution should be a .pdf file with the name <your last name>\_quiz9.pdf and uploaded. To upload your solution, please navigate to your correct Canvas ***lab*** course space. Select the “Assignments” link in the main left menu bar. Navigate to the correct quiz submission folder. Click the “Start Assignment” button. Click the “Upload File” button. Choose the appropriate .pdf file with your solution. Finally, click the “Submit Assignment” button.

1. (2 pts) How many *bytes* are in 512-bits? \_\_64\_\_\_\_\_\_\_\_\_
2. (2 pts) What is the largest unsigned number that may be represented by *four* bytes? \_\_\_\_\_ 4,294,967,295\_\_\_\_\_\_\_\_\_
3. (3 pts) What is the result of the following C expression? List your answer as an 32-bit *binary* number.

29310 << 310 \_\_\_00000000 00001001 001010002\_\_\_\_\_\_\_\_

29310 = 1001001012

Shifted 3 bits left,

00000000 00001001 001010002

1. (3 pts) What is the result of the following C expression? List your answer as a *decimal* number.

11110 & 3710 |1910 \_\_\_\_\_55\_\_\_\_\_\_\_\_

11110 = 11011112

3710 = 1001012

1910 = 100112

11011112 & 1001012 = 1001012

1001012 |100112 = 1101112

1101112 = 25+ 24+ 22+ 21+ 20 = 32 + 16 + 4 + 2 + 1 = 55

1. (5 pts) What is the function call stack? Please explain.

A function call stack is the area of memory where function calls can allocate memory from it, the function can then use this memory to perform tasks through function execution, and then get rid of that memory in function returning.