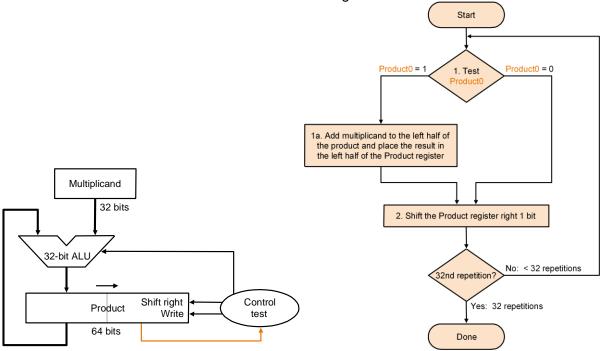
### **EE334 Computer Architecture**

### **Homework Assignment 3**

### 32-bit multiplier

Due: Wednesday, February 17, 2010

For this assignment you are to implement a 32X32-bit multiplier using the scheme explained in class (and shown below). The numbers you are going to multiply are two positive numbers. Numbers are read from the console (i.e. user will get a prompt to input both multiplicand and multiplier). The multiplicand is placed in a register. Using two registers, the 64-bit register (for the product and multiplier) is implemented. The product (64-bit word) will be displayed in the console. Please use PCSPIM for this homework assignment.



# REPORT

Please include the following items in your report (you will be email this report in either MS word or pdf format).

- 1. Explain how your program works. You may use a flow chart, pseudo C program, or other way to explain the program.
- 2. Show a couple of examples.
- 3. Conclusion section. Explain what you learned here and what was difficult about this homework.
- 4. Include in a separated file your program. # Include comments in your program.

# REPORT IS DUE: 12noon, Wednesday, February 17, 2010

Please email your report to Mr. Jason Van Dyken (jdv@wsu.edu or vandykej@eecs.wsu.edu).

TA: Jason Van Dyken. Office Hours: Monday and Tuesday 1-2pm, Sloan 353.