

UCF

School of Computer Science
CGS 3269 Computer Architecture
Summer 2005
Homework 3

DUE 7/21/05

1. Convert the following numbers to IEEE single-precision format.
 - a) 9
 - b) -8
 - c) 128
2. Write a program, in the assembly language explained in class, that executes the following computation: $c = a * b$.
3. Divide the program written in question 3 into pages. Each page can store up to 4 instructions or data values. Remember to transform the absolute addresses of the original program to the format <page, displacement>.
4. What is virtual memory?
5. In a virtual memory addressing mechanism, why do we need a TLB?
6. When there is a page fault, how many I/O operations are executed