Signature_____ **Quiz 5** **Name** _____

CSE 131B

Login name _____ **Winter 2006** **Student ID** _____

1. Given the following Oberon code fragment:

Oberon

```
VAR x : INTEGER;

PROCEDURE foo( i : INTEGER; VAR j : INTEGER ) : INTEGER;
BEGIN
  (* Body of foo() not relevant. *)
END foo;

BEGIN
  x := 8675309;
  x := foo( x, x );
END.
```

Write the equivalent translated unoptimized SPARC Assembly language statements emitted by the code generator for main(). Do not translate procedure foo(). Allocate global variables in the BSS using direct label access by their name just like a real compiler would. Do not use one of the other mechanisms discussed to implement global variables.

2. Write a short test program in Oberon to verify a change to a call-by-reference parameter immediately updates the object the parameter references.

What output do you expect with call-by-reference?

What output do you expect if the underlying implementation was call-by-value/result instead?

What question would you most like to see on the Final? (1 pt)