#1. An initialized external static variable has local scope/visibility to the ___________________________ in which it is defined but is stored in the _____________ segment and therefore the lifetime/duration of this variable is the lifetime of the __________________________.

An uninitialized internal static variable has local scope/visibility to the __________________________ in which it is defined but is stored in the _____________ segment and therefore the lifetime/duration of this variable is the lifetime of the __________________________.

When a function is declared to be static, it’s scope/visibility is ________________________________ . _______________ linking usually results in larger binaries compared to other types of linking.

The keyword to turn off optimizations that may be applied to a variable is __________________________.

_______________ linking is probably more secure and preferred when shipping compiled code to be run on unknown systems.

#2. What is the default buffering for

stderr _________________
stdin _________________
files _________________

#3. This type of I/O architecture allows the I/O device to read/write from/to memory without intervention by the CPU.

_______________

(over)
Given the following program, reorder the printf lines so that the values that are printed are sorted from smallest to largest if compiled and run on a Sun SPARC architecture. These lines print out the address of the different parts of the program (not the values assigned).

```
static int a;

int main( int argc, char *argv[] ) {
    int b;
    static int c = 420;

    /* 1 */ (void) printf( "a --> %p\n", &a );
    /* 2 */ (void) printf( "b --> %p\n", &b );
    /* 3 */ (void) printf( "c --> %p\n", &c );
    /* 4 */ (void) printf( "argc --> %p\n", &argc );
    /* 5 */ (void) printf( "main --> %p\n", main );
    /* 6 */ (void) printf( "malloc --> %p\n", malloc(505) );
}
```

___________  This line number would print the smallest value

___________

___________

___________

___________

___________  This line number would print the largest value

What question would you most like to see on the Final Exam?