#1. Order by general access speed the following data storage types. [ 1 is fastest, 6 is slowest ]

SASD ______ (Sequential Access Storage Device -- e.g., tape drive)

L1 cache ______

RAM ______ (Random Access Memory -- e.g., main memory)

DASD ______ (Dynamic Access Storage Device -- e.g., disk drive)

L2 cache ______

registers ______

#2. Put the following in the correct order/sequence of flow:

A) loader
B) assembler
C) execution
D) source code
E) linker
F) compiler
G) executable (a.out/.exe)

______ → ______ → ______ → ______ → ______ → ______ → ______ → ______

#3. What gets printed if the following function is invoked as `recurse( 2468 )`?

```c
void recurse( int num ) {
    int rt;
    rt = num % 10;
    num = num / 10;
    printf( "%d\n", rt );
    if ( num != 0 )
        recurse( num );
    printf( "%d\n", num );
}
```
#4. 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) with the printf() format specifier %p.

```
static int c;

int main( int argc, char *argv[] ) {
    static int b = 42024;
    int a = 420;

    /* 1 */ (void) printf( "main --> %p\n", main );
    /* 2 */ (void) printf( "c --> %p\n", &c );
    /* 3 */ (void) printf( "malloc --> %p\n", malloc(50) );
    /* 4 */ (void) printf( "b --> %p\n", &b );
    /* 5 */ (void) printf( "argc --> %p\n", &argc );
    /* 6 */ (void) printf( "a --> %p\n", &a );
}
```

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?