SU13 FINAL EXAM REVIEW

FYI
If there are any register usage conventions, I will tell you what they are
If you need to know the size of a type in any language, I will tell you what it is, if necessary
You will be given the Y86 ISA page
Y86 Fetch execute loop page given

SUBJECT MATERIAL

IA32 - cmp, test, leal, imull... recognize (no set or divide or shift etc not covered in Y86)
Y86 (all instructions)
Differences between the two assembly languages (Y86 signed only)
Need to be able to recognize/evaluate *correct* code for both IA32 and Y86
   i.e. what is in regs, memory, stack info, result of function, etc
Know when are condition code bits set and how used (jump/cmovs)
Be able to add to binary values to also set condition codes
Midterm 2 info from sp13; homeworks, lab4 and lab5; starting with slides F7
Compiler driver
C code to equivalent assembly (both IA32 and Y86) and vice versa
Addressing modes
CISC/RISC
Big/little endian
Load/store architecture
Encoding/Decoding Y86 instructions
Stack Stack Stack
Fetch-Execute loop in Y86 and how instructions are fetched/executed
Define/differentiate between relocatable and executable object files
Linker vs loader and definitions of each
Symbol table info:
   ☑ Symbol definitions are stored (by compiler) in a “symbol table”
      ➢ A symbol table is an array of structs
         ➢ Each entry includes name, size, and location of symbol
   ☑ Linker associates each symbol reference with exactly one symbol definition

NOT covering
Structures
Disassembler
Shifting operations
Pipelining
Special float value issues
IA32 size instruction issues
Dynamic linking issues