After his lecture you should be able to answer the following questions:

1. What is an instruction set?
2. What tradeoffs are made for more or less operands per instruction?
3. What are the address modes and why are there some many different modes?
4. How does number of operands effect address modes?
5. How does the prefetch and pipelining improve performance?

Multiple choice questions (answers on the last page)

1. When the system has the least significant byte is followed by the most significant byte, it is called:

A. Left addressing B. Big Endian
C. An Intel computer D. Little Endian

2. When the system has the most significant byte is stored first, it is called:

A. Left addressing B. Big Endian
C. An Intel computer D. Little Endian

3. more operands in an instruction, can lead to

A. fewer instructions per program B. faster fetch-execution of instructions
C. more addressing modes D. more complex programs.

4. fewer operands in an instruction, can lead to

A. fewer instructions per program B. faster fetch-execution of instructions
C. more addressing modes D. more complex programs.

5. Which of the following address mode is load 800 using?

A. Immediate B. Direct
C. Indirect D. Indexed
E. All of the above F. None of the above

6. Instruction prefetch can help improve performance by

A. Almost double B. Double
C. Almost triple D. by a factor of 6

7. Using a pipeline, which of the following instructions can cause the pipeline to have junk instructions already in the pipeline?

A. Load B. Multiple
C. Branch D. Store

1. D, 2. B, 3. A, 4. B, 5. E, 6 A, 7. C