The following is a list of possible questions for our quiz on April 23rd. Some of the questions will not be asked in the quiz. All the questions that will appear in the quiz will appear exactly as shown below (however, numeric parameters may be changed). The quiz is closed textbook, closed notes and closed neighbors. Note that the questions, which did not appear in this quiz, still may appear in the exams. You will find a solution for these questions during lectures.

#1: What is the primary goal for “hyper threading”?

#2: What are “multi-function unit processors”? Are they same as “multi-core processors”?

#3: What is the primary problem in “multi-function unit processors”?

#4: Hyper-threading is a technique to improve the processor utilization of tightly-coupled dual-processor computers. Is this true or false?

#5: Why is it called “hyper-threading” instead of “hyper-processing”?

#6: What is the “granularity” of the tasks hyper-threading uses to allocate processor resource?

#7: Why Intel did not make it “hyper-processing” (what is wrong to do “hyper-processing”)?

#8: What is the essential difference between “medium-grained tightly-coupled multi-processor parallel computers” and “hyper-threading”?

#9: Technically describe how hyper-threading can improve processor utilization.

#10: What are the major weaknesses of “hyper-threading”?

#11: What does “UMA” and “NUMA” stand for?

#12: Describe the structure of UMA architecture.

#13: Describe the structure of NUMA architecture.

#14: What are the primary weaknesses in UMA architecture?

#15: Which “parallel granularity” can NUMA be applied to?

#16: Which “parallel granularity” can UMA be applied to?

#17: Which of UMA or NUMA architecture is used for “loosely coupled parallel computers (e.g., server blades)”?
#18: Which of UMA or NUMA architecture is used for “distributed systems”?

#19: Which of UMA or NUMA architecture is used for “multi-core processor computer systems”?