Mendel Rosenblum 2005 EE qualifying exam questions:

1) Pipelining
   a) Explain how pipelining allow a CPU to execute faster?
   b) What happens when an instruction executing in a pipeline has an error (e.g. Illegal instruction, Page Fault)?
   c) What can be done to speedup exception processing?
   d) What changes would be needed to a pipeline to support very low overhead exceptions?

2) Translation lookaside buffer (TLB)
   a) What does a TLB do?
   b) Is the TLB typically visible to the software?
   c) How would you design a TLB so that it was invisible to the software including the operating system?