

1994 Paper 9 Question 1

Comparative Architectures

Discuss alternative ways of implementing 8-bit and 16-bit object access on processors with a 32-bit or 64-bit bus size. [7 marks]

How might one deal with 9-bit objects? [3 marks]

Both the DEC Alpha and the MIPS R2000 claim to be RISC machines. One has delayed branches and loads but the other does not. Sketch possible design or implementation differences. [7 marks]

Why might *conditional move* instructions be useful? [3 marks]