1996 Paper 8 Question 4

Comparative Architectures

Discuss implementing the ANSI C routine `memcpy()` in hardware and software. Why might a C compiler place a string literal on a word boundary when it only needs to be byte aligned?   [10 marks]

The DEC ALPHA is a RISC-inspired instruction set designed to last around 25 years with multiple implementations as hardware. Discuss to what extent the epithet RISC can be applied and to what extent its main architectural features follow the familiar RISC mould.   [10 marks]