1996 Paper 6 Question 1

Processor Architecture

Why do processors usually support supervisor and user modes of operation and what are they used for? [6 marks]

What is the difference between *interrupts*, *software interrupts* (initiated by a SWI instruction on the ARM) and *exceptions*? [8 marks]

What is an *imprecise exception* and why might a processor designer prefer it to a precise exception mechanism? [6 marks]