

## 1998 Paper 13 Question 2

### Computer Design

Computer memory is usually organised as a *memory hierarchy*. Why is this the case? [4 marks]

What are the relative latency and bandwidth characteristics of each level of a typical memory hierarchy? [4 marks]

How does a direct-mapped cache work and what might the data replacement policy be? [6 marks]

How does a set-associative cache work and what might the data replacement policy be? [6 marks]