

## 2003 Paper 1 Question 4

### Operating Systems

For each of the following, indicate whether the statement is true or false, and explain why this is the case (no marks will be awarded for an answer with no explanation).

- (a) Preemptive schedulers require hardware support.
- (b) The Unix shell supports redirection to the buffer cache.
- (c) A context switch can be implemented by a flip-flop stored in the translation lookaside buffer (TLB).
- (d) Non-blocking I/O is possible even when using a block device.
- (e) Shortest job first (SJF) is an optimal scheduling algorithm.

[2 marks each]