

## 2005 Paper 7 Question 15

### Additional Topics

- (a) Describe briefly the concepts of throughput and latency in networking design. Does high latency always imply low throughput or *vice versa*? Explain your answer. [4 marks]
- (b) Detail how a traditional operating system processes TCP/IP packets from a Network Interface Card (NIC). Discuss recent efforts to improve the latency of traditional networking operations. [8 marks]
- (c) Explain how data is transferred from one machine to the next using the Shared Memory Model (SMM). [4 marks]
- (d) Discuss the problem of application synchronisation using the SMM, highlighting different solutions that have been attempted to overcome this problem. [4 marks]