2002 Paper 1 Question 4

Operating Systems

(a) What is an *interrupt*? [1 mark]

(b) A hardware device wishes to transfer information to the main memory of the computer for access by an application. The following three mechanisms are available:

(i) polled mode operation;

(ii) programmed I/O;

(iii) direct memory access (DMA).

For each one, summarise its operation and suggest an advantage it holds over the others.

[3 marks each]