

1998 Paper 4 Question 6

Computer Design

Briefly describe the differences between a memory bus, an I/O bus and a device interface on a typical PC, with emphasis on latency and bandwidth characteristics. [8 marks]

What is the difference between serial and parallel data transmission? [2 marks]

The physical layer for Universal Serial Bus (USB) is simpler and yet faster than old fashioned RS232. What has made this possible and economic? [5 marks]

Why is it that you can “plug-and-play” with USB devices but you cannot easily “plug-and-play” with RS232 devices? [5 marks]