2001 Paper 3 Question 6

Computer Design

(*a*) Why does pipelining introduce data hazards?   [4 marks]

(*b*) What mechanism may be used to remove some data hazards?   [4 marks]

(*c*) Why is it not possible to remove all data hazards?   [4 marks]

(*d*) What hardware is required to prevent data hazards from infringing the programmer's model of instruction execution?   [4 marks]

(*e*) What is the difference between a data hazard and a control hazard? [4 marks]