Computer Design

(a) What is microcode and how does it differ from assembler? [6 marks]

(b) In assembler, branch instructions are used to change the flow of control. How can flow control be determined in a microcode environment? [4 marks]

(c) With the aid of a diagram, explain what a feedback path (sometimes called a bypass) is and how it is used to improve the throughput of a pipeline. [6 marks]

(d) What is a branch delay slot? [4 marks]