1 Computer Design (SWM)

(a) What is the difference between production test and functional test? [2 marks]

(b) What is path sensitisation for production test? Provide an example. [4 marks]

(c) Below is the circuit for a JTAG scan flip-flop. How are the signals TI, TO, TE and CLK used to undertake production test? [6 marks]

(d) In SystemVerilog, what is the purpose of an “initial” block and how is timing specified? [4 marks]

(e) What is static timing analysis and why is it important for a design to pass timing if it is to be functionally correct? [4 marks]