Assignment 7

March 31, 2011, 01:43 AM

1. Draw the circuit diagram for an inverter gate. (10 marks)

2. What is the function of an AND gate? (5 marks)

3. Explain the principle of operation of an OR gate. (10 marks)

4. What is the output of a NOR gate when both inputs are high? (5 marks)

5. Describe the behavior of a NAND gate. (10 marks)

6. Sketch the schematic diagram for a Schmitt trigger. (15 marks)

7. What is the purpose of a Schmitt trigger? (10 marks)

8. Design a circuit that can detect an overvoltage condition. (20 marks)

9. Explain the concept of hysteresis in a Schmitt trigger. (10 marks)

10. Discuss the advantages of using Schmitt triggers in practical applications. (15 marks)