

CHAPTER 1

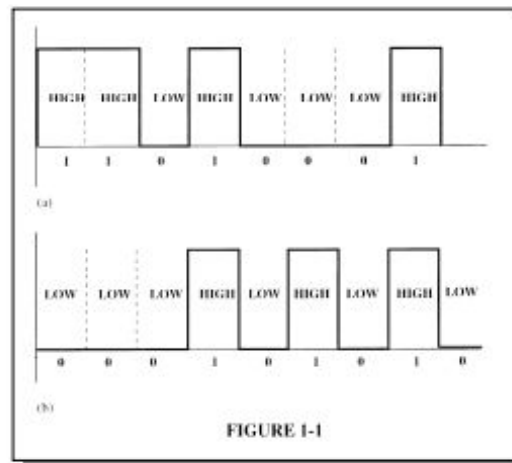
INTRODUCTORY CONCEPTS

Section 1-1 Digital and Analog Quantities

1. Digital data can be transmitted and stored more efficiently and reliably than analog data. Also, digital circuits are simpler to implement and there is a greater immunity to noisy environments.
2. Pressure is an analog quantity.
3. A clock, a thermometer, and a speedometer can have either an analog or a digital output.

Section 1-2 Binary Digits, Logic Levels, and Digital Waveforms

4. In positive logic, a 1 is represented by a HIGH level and a 0 by a LOW level. In negative logic, a 1 is represented by a LOW level, and a 0 by a HIGH level.
5. HIGH = 1; LOW = 0. See Figure 1-1.



6. A 1 is a HIGH and a 0 is a LOW:
 - (a) HIGH, LOW, HIGH, HIGH, HIGH, LOW, HIGH
 - (b) HIGH, HIGH, HIGH, LOW, HIGH, LOW, LOW, HIGH