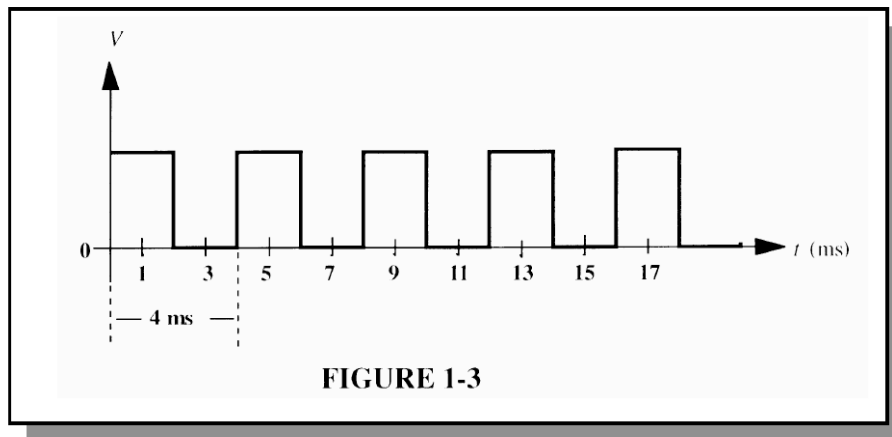


## Notice

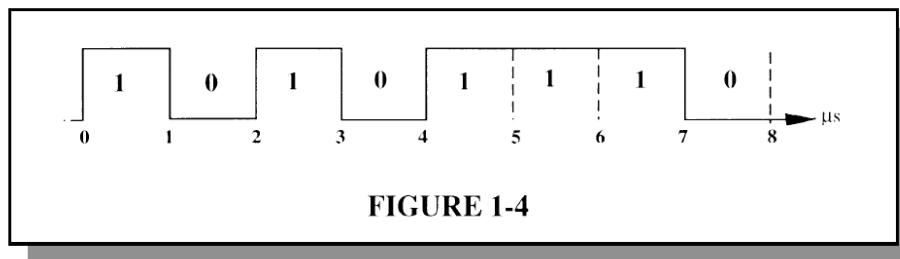
Copyright of Thomas L. Floyd. Use in class only. Do not distribute unless permission is obtained from the original author.

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.

8.  $T = 4 \text{ ms}$ . See Figure 1-3.



12. See Figure 1-4.



14. 
$$T = \frac{1}{f} = \frac{1}{3.5 \text{ GHz}} = 0.286 \text{ ns}$$

18. An OR gate produces a HIGH output when *either or both* inputs are HIGH. An exclusive-OR gate produces a HIGH if one input is HIGH and the other LOW.

20. 
$$T = \frac{1}{10 \text{ kHz}} = 100 \text{ } \mu\text{s}$$

$$\text{Pulses counted} = \frac{100 \text{ ms}}{100 \text{ } \mu\text{s}} = 1000$$

24. See Figure 1-8.

