## **Instructions**

Solve the following:

1. Use NAND gates, NOR gates, or combinations of both to implement the following logic expressions as stated:

$$X = A'[B + C(D + E)]$$

- 2. . Convert FIGURE 5–54, search in the book, using NAND and NOR only.
- 3. How JK flip flop have solve invalid condition?
- 4. In Section 7–2 Flip-Flops: Solve Problem 16 and 17 at page 442.