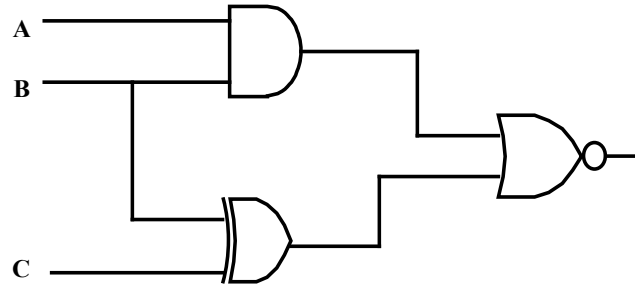
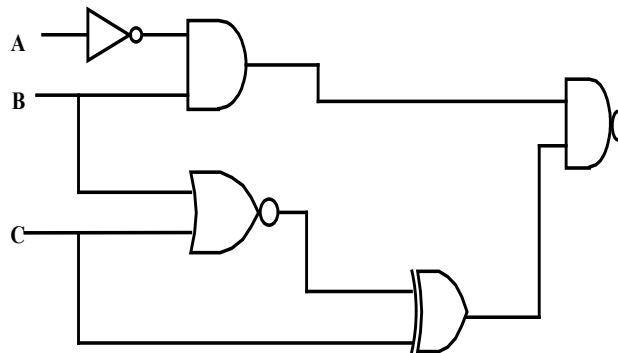


1. Digital Electronics

List the ordered triples make the following circuit TRUE?

**2. Digital Electronics**

Translate the circuit. Do not simplify. Use the minimum number of parentheses.

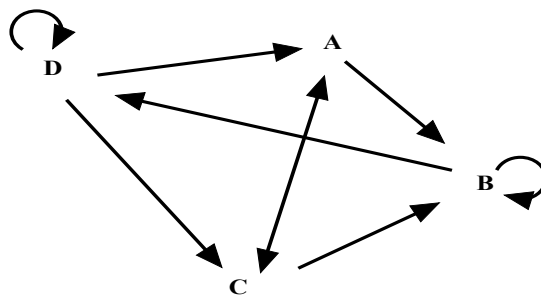
**3. Boolean Algebra**

Simplify the following Boolean expression so that the answer uses NOT operators and only one other type of operator:

$$\overline{A + \overline{B}} \quad \overline{\overline{CA}(B + C)}$$

4. Graph Theory

How many cycles exist in the following directed graph?

**5. Graph Theory**

Given the vertices $\{A, B, C, D, E\}$ and the edges $\{AB, AC, CB, DE, EC, BE\}$, draw the directed graph.