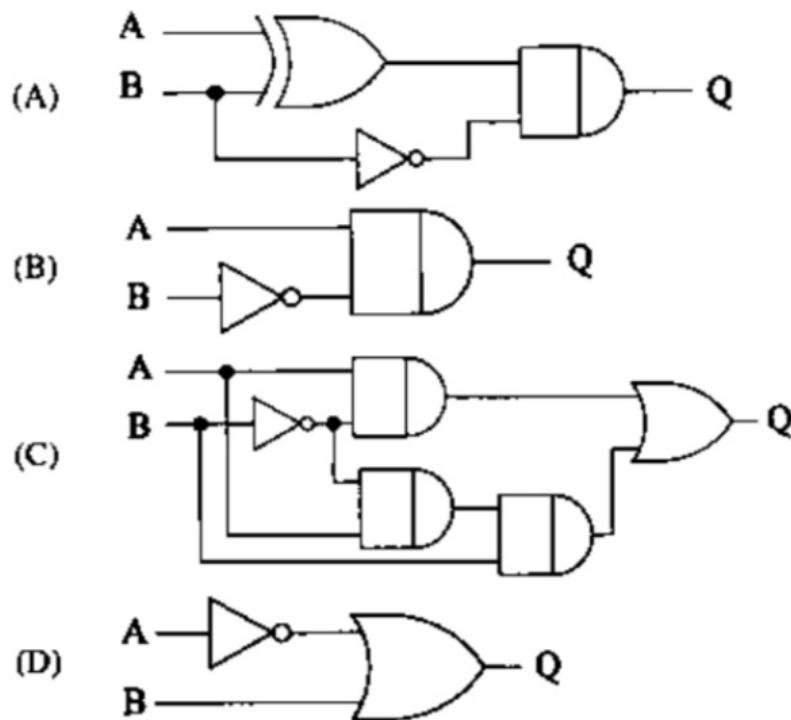


GATE QUESTION PH 2010 Q31

Question

Q.41 For any set of inputs, A and B, the following circuits give the same output, Q, except one.

Which one is it?



Answer: (C)

Explanation:

- Option (A): Implements the XNOR logic using NOR and NOT gates. Correct.
- Option (B): Uses De Morgan's law. Equivalent to XNOR. Correct.
- Option (C): The circuit implements XOR due to how the gates are configured. This is different from the others.
Hence, this circuit gives a different output.
- Option (D): This also simplifies to XNOR. Correct.

Therefore, the circuit in option (C) does not match the output of others.