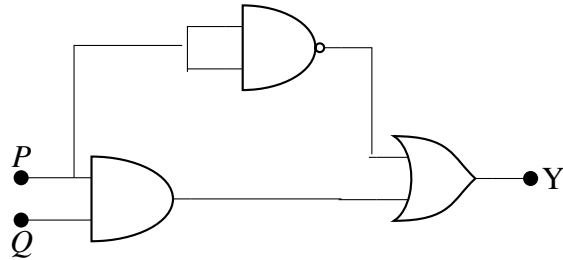


GATE:PH-24-2023

EE23BTECH11048 - P Venkata Chanakya

Question Which one of the following options is CORRECT for the given logic circuit?



- 1) $P = 1, Q = 1; X = 0$
- 2) $P = 1, Q = 0; X = 1$
- 3) $P = 0, Q = 1; X = 0$
- 4) $P = 0, Q = 0; X = 1$

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Solution:

$$X = \overline{P} + P \cdot Q$$

P	Q	X
0	0	1
0	1	1
1	0	0
1	1	1

\Rightarrow 4 is correct option