

GATE EC2022-49

November 29, 2023

Question

1. Consider a Boolean gate (D) where the output (Y) is related to the inputs (A) and (B) as, $Y = A + B$, where $+$ denotes logical OR operation. The Boolean inputs '0' and '1' are also available separately. Using instances of only D gates and inputs '0' and '1', (select the correct option(s)).
 - (a) NAND logic can be implemented
 - (b) OR logic cannot be implemented
 - (c) NOR logic can be implemented
 - (d) AND logic cannot be implemented.