

Solutions PDF Generated from: solutions-openai-generated/quizzes/quiz-week-02- solutions-set-02.json

Question A

List the names of one-input and two-input logic gates, excluding XOR and XNOR.

One-Input Logic Gates:

NOT (or Inverter)

Two-Input Logic Gates:

AND

OR

NAND

NOR

Question B

What is the difference between OR and XOR gate?

The OR gate is a logic gate that outputs a 1 or high when either or both of its inputs are 1 or high. The OR gate will output a 0 or low when both of its inputs are 0 or low.

The XOR gate is a logic gate that outputs a 1 or high when one of its inputs is 1 or high and the other input is 0 or low. The XOR gate will output a 0 or low when both of its inputs are either 1 or high or when both of its inputs are 0 or low.

Question C

Can we have more than two-input gates?

Yes, there are multiple-input logic gates available, such as three-input AND, four-input AND and XOR gates, and even more complex multi-input logic gates.

Question D

What is the purpose of "bubble pushing"?

Bubble pushing is a strategy used in computer science to make algorithms or programs more efficient. It is a debugging technique that involves pushing errors or bugs to the edge of a program by making small changes and running the program again. By moving bug to where they are easier to identify and fix, this strategy helps to speed up the process of debugging algorithms or programs.

Execution Time

0:00:21.689498

OpenAI Parameters

Model: text-davinci-003, Max. Tokens: 1024, Temperature: 1, N: 1