

Logic Gates Introductory Level

Multiple choice questions

Question 1	Question 2	Question 3
What are the three basic logic gates?	What is the main function of a NOT gate?	What is the main purpose of logic gates in digital systems?
<p>A. AND, OR, XOR</p> <p>B. AND, OR, NOT</p> <p>C. NAND, NOR, XNOR</p> <p>D. AND, NOT, NAND</p>	<p>A. It produces a 1 output only if all inputs are 1.</p> <p>B. It produces a 1 output if at least one input is 1.</p> <p>C. It reverses the input signal.</p> <p>D. It produces a 1 output only if the inputs are different.</p>	<p>A. To store information.</p> <p>B. To control the flow of information and perform calculations.</p> <p>C. To create visual displays.</p> <p>D. To transmit data over long distances.</p>

Short-answer questions

1. What is the relationship between the inputs and output of a logic gate?
2. How do logic gates work with binary signals?
3. What are the seven main types of logic gates?

Open-ended questions

1. Think about the different tasks you perform in your daily life, like making decisions or solving problems. In what ways are these tasks similar to the way logic gates work in digital systems?
2. Logic gates are used in everything from simple calculators to powerful computers. How do you think the use of logic gates has impacted your life and the world around you?

