

ECAT Computer Science Chapter 5 Boolean Algebra

Sr	Questions	Answers Choice
1	Pick up wrong logical expression	
2	If A and B are two 1-bit numbers, what logic gates will be required to test for A=B?	A. NOR gate B. EXCLUSIVE OR gate C. EXCLUSIVE NOT gate D. OR gate
3	Question Image	A. $x + y$
4	The logic device that perform Boolean multiplication is.	A. AND gate B. OR gate C. Inverter D. None of these
5	Boolean <u>expression</u> for NOR gate with <u>two inputs</u> x and y can be written as.	A. $\overline{x + y}$ B. $x \cdot y$ C. $\overline{x} + \overline{y}$
6	The half adder circuit has	A. one input B. two inputs C. three inputs D. always more than two inputs
7	According to Boolean algebra $x + 1 =$ _____	A. 0 B. 1 C. x
8	Boolean algebra is also known as.	A. logical algebra B. control algebra C. switching algebra D. programming algebra
9	Question Image	A. $\overline{A + B} + \overline{C + D}$ C. $\overline{A} \cdot \overline{B} + \overline{C} \cdot \overline{D}$ D. $\overline{A} + \overline{B}$
10	Which of the following operations are used by Boolean algebra.?	A. Boolean addition B. Boolean multiplication C. Boolean complementation D. All of the above
11	Odd parity of a word can be conveniently tested by.	A. OR gate B. XOR gate C. NOR gate D. NAND gate
12	The number of inputs to full adder are	A. 1 B. 2 C. 3 D. 4
13	Which of the following gate is two level logic gate.	A. OR gate B. AND gate C. EXCLUSIVE OR gate D. NAND gate
14	Question Image	A. $x \cdot y$ B. $\overline{x + y}$ C. $\overline{x} \cdot \overline{y}$ D. $x \cdot y$
15	Question Image	A. 0 B. 1 C. x
16	An AND gate will function as OR if.	A. all the inputs to the gates are "1" B. all the inputs are "0" C. a Not gate is added to it D. all the inputs and outputs are complemented
17	The 'Boolean Algebra' is based on the premise that	A. there are two states B. differential equations can be solved by analog circuits.

C. either a statement is true or false
D. arithmetic operations can be carried out

18 According to Idempotent law , $x + y =$ _____

- A. 1
- B. 0
- C. x
- D. $x \cdot x$

19 Boolean description for the exclusive OR gate for two inputs x and y can be written as.

- A. $x \oplus y$ ___
- B. $x \cdot y$
- C. $x \oplus y \oplus x \oplus y$
- D. $x \cdot y + x \cdot y$

20 The heart of analog to digital converter (ADC) is

- A. comparator
- B. pulse generator
- C. voltage source
- D. current source