

ECAT Computer Science Chapter 5 Boolean Algebra

Sr	Questions	Answers Choice
1	The commutative law in Boolean Algebra, where a, b and c are binary number is.	A. $a+0=a$ B. $a+1=1$ C. $a+b=b+a$ D. $a \cdot (b+c) = a \cdot b + a \cdot c$
2		A. $\langle u \rangle A + B \langle /u \rangle + \langle u \rangle C + D \langle /u \rangle$ C. $\langle u \rangle A \langle /u \rangle + \langle u \rangle B \langle /u \rangle C \langle u \rangle + D \langle /u \rangle$
3	According to Idempotent law , $x + y =$ _____	A. 1 B. 0 C. x D. $x \cdot x$
4	According to Boolean algebra $x + 1 =$ _____	A. 0 B. 1 C. x
5	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
6	The number of inputs to full adder are	A. 1 B. 2 C. 3 D. 4
7	An OR gate has 6 input. The number of input words in its truth table are.	A. 6 B. 32 C. 64 D. 128
8	The output will be one in case any input is one in the case of.	A. OR gate B. AND gate C. NAND gate D. NOT gate
9	Which of the following operations are used by Boolean algebra.?	A. Boolean addition B. Boolean multiplication C. Boolean complementation D. All of the above
10	The logic device that perform Boolean multiplication is.	A. AND gate B. OR gate C. Inverter D. None of these
11	Odd parity of a word can be conveniently tested by.	A. OR gate B. XOR gate C. NOR gate D. NAND gate
12	Boolean <u>expression</u> for NOR gate with <u>two inputs</u> x and y can be written as.	A. $\langle u \rangle x \langle /u \rangle + y _$ B. $x \cdot y$ C. $\langle u \rangle x + \langle /u \rangle y$
13	The heart of analog to digital converter (ADC) is	A. comparator B. pulse generator C. voltage source D. current source
14	According to absorption law $x+x \cdot y =$	A. x B. y C. $1 + x$ D. $1 + y$
15	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

16 Question Image

- A. 0
- B. 1
- C. x

17 Question Image

- A. $A + B + C + D$
- B. $A + B + C + D$
- C. $A + B + C + D$
- D. $A + B + C + D$

18 The circuit that is used for parallel to serial conversion is

- A. decoder
- B. encoder
- C. multiplexer
- D. demultiplexer

19 Boolean algebra is also known as.

- A. logical algebra
- B. control algebra
- C. switching algebra
- D. programming algebra

20 Which of the following statement is true in the case of AND gate with input A and B.

- A. If A and B are applied, there will not be any output
- B. If neither input is applied, there will be an output
- C. If one input is applied there will not be any output
- D. If one input is applied there will be an output