

## ECAT Computer Science Chapter 5 Boolean Algebra

Sr	Questions	Answers Choice
1	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
2	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. $A + B + C + D$ B. $A + B + C + D$ C. $A + B + C + D$ D. $A + B + C + D$
3	Boolean algebra is.	A. used for arithmetical operation is ALU B. an aid for binary conversion C. useful for error detection and error correction D. used to describe the behavior and structure of logic networks and as an aid in the design of logic system
4	Boolean <u>expression</u> for NOR gate with <u>two inputs</u> x and y can be written as.	A. $x + y$ B. $x \cdot y$ C. $x + y$
5	The number of inputs to full adder are	A. 1 B. 2 C. 3 D. 4
6	According to Idempotent law , $x + y =$ _____	A. 1 B. 0 C. x D. x . x
7	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. 0 B. 1 C. x
8	Pick up wrong logical expression	
9	The circuit that is used for parallel to serial conversion is	A. decoder B. encoder C. multiplexer D. demultiplexer
10	According to Boolean algebra $A + A + \dots + A$ is	A. A B. n A C. 0 D. 1
11	NAND gates are preferred over others because these.	A. have lower fabrication area B. can be used to make any gate C. consume least electronic power D. provide maximum density in a chip
12	Which of the following operations are used by Boolean algebra.?	A. Boolean addition B. Boolean multiplication C. Boolean complementation D. All of the above
13	The half adder circuit has	A. one input B. two inputs C. three inputs D. always more than two inputs
14	According to absorption law $x + x \cdot y =$	A. x B. y C. $1 + x$ D. $1 + y$
15	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. $x + y$ B. $x \cdot y$

16	Question Image	<p>B. <math>\overline{x + y}</math></p> <p>C. <math>\overline{x} \cdot \overline{y}</math></p> <p>D. <math>x \cdot y</math></p>
17	Logical multiplication refers to operation of.	<p>A. OR gate</p> <p>B. AND gate</p> <p>C. NOT gate</p> <p>D. inverter gater</p>
18	Question Image	<p>A. <math>A + B + C + D</math></p> <p>C. <math>A + B + C + D</math></p> <p>D.</p>
19	In Boolean algebra A.A.A.A	<p>A. 5A</p> <p>B. A</p> <p>C. <math>A^5</math></p> <p>D. 1</p>
20	Which of the following gate is two level logic gate.	<p>A. OR gate</p> <p>B. AND gate</p> <p>C. EXCLUSIVE OR gate</p> <p>D. NAND gate</p>