

## ECAT Computer Science Chapter 5 Boolean Algebra

Sr	Questions	Answers Choice
1	Question Image	A. 0 B. 1 C. x
2	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. $a \cdot (b+c) = a \cdot b + a \cdot c$
3	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
4	Boolean algebra is also known as.	A. logical algebra B. control algebra C. switching algebra D. programming algebra
5	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
6	Pick up wrong logical expression	
7	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
8	Which of the following gate is two level logic gate.	A. OR gate B. AND gate C. EXCLUSIVE OR gate D. NAND gate
9	The number of inputs to full adder are	A. 1 B. 2 C. 3 D. 4
10	According to Boolean algebra $A+A+.....+A$ is	A. A B. n A C. 0 D. 1
11	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. $x \oplus y = x \oplus y$ D. $x \cdot y + x \cdot y$
12	An OR gate has 6 input. The number of input words in its truth table are.	A. 6 B. 32 C. 64 D. 128
13	Question Image	A. $A + B + C + D$ B. $A \oplus B \oplus C \oplus D$ C. $A \oplus B \oplus C \oplus D$ D. $A \oplus B \oplus C \oplus D$
14	In Boolean algebra $A \cdot A \cdot A \cdot A$	A. 5A B. A C. $A^5$ D. 1
15	The circuit that is used for parallel to serial conversion is	A. decoder B. encoder C. multiplexer D. demultiplexer
16	Question Image	A. $A \oplus B \oplus C \oplus D$ B. $A \oplus B \oplus C \oplus D$ C. $A \oplus B \oplus C \oplus D$ D. $A \oplus B \oplus C \oplus D$

---

17 According to absorption law  $x \cdot (x+y) =$

A. x  
B. y  
C.  $1+x$   
D.  $1+y$

---

18 The logic device that perform Boolean multiplication is.

A. AND gate  
B. OR gate  
C. Inverter  
D. None of these

---

19 Logical multiplication refers to operation of.

A. OR gate  
B. AND gate  
C. NOT gate  
D. inverter gater

---

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

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

---