ECAT Computer Science Chapter 5 Boolean Algebra Online Test

Sr	Questions	Answers Choice
1	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
2	Boolean algebra is also known as.	A. logical algebra B. control algebra C. switching algebra D. programming algebra
3	Boolean algebra use which of the following to represent arithmetic quantities.	A. decimal digits B. exponents C. binary bits D. fractions
4	Which of the following operations are used by Boolean algebra.?	A. Boolean addition B. Boolean multiplication C. Boolean complementation D. All of the above
5	Logical addition refers to operation of	A. OR gate B. AND gate C. NOT gate D. invertr gate
6	Logical multiplication refers to operation of.	A. OR gate B. AND gate C. NOT gate D. inverter gater
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 logic device that perform Boolean multiplication is.	A. AND gate B. OR gate C. Inverter D. None of these
10	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
11	Which of the following function is referred as the complementary.?	A. OR function B. NOT function C. NAND function D. AND function
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	An AND gate will function as OR if.	A. all the inputs to the gates are "I" B. all the inputs are "O" C. a Not gate is added to it D. all the inputs and outputs are complemented
		A. OR gate

14	Odd parity of a word can be conveniently tested by.	B. XOR gate C. NOR gate D. NAND gate
15	NAND gates are preferred over others because these.	A. have lower fabrication area B. can be used to make any gate C. consume least elctronic power D. provide maximum density in a chip
16	Question Image	A. <u>A</u> +<u> B</u> +<u> C</u> + D C. <u>A</u> <u>B</u><u>C</u> <u>D</u> D. A + B + C + D
17	Question Image	A. <u>A + B</u> +<u> C + D</u> C. <u>A</u> + <u>B</u> C<u> + D</u>
18	Boolean description for the exclusive OR gate for two inputs x and y can be written as.	A. x<u> +</u> y __ B. _x _y C. x.<u> y </u>+<u> x</u>. y D. x . y + x .y
19	Boolean expression for NOR gate with two inputs x and y can be written as.	A. <u>x</u> + y__ B. x. y C. <u>x + </u>y
20	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
21	Question Image	A. x + y
22	Question Image	A. x . y B. <u>x + y</u> C. <u>x</u> . <u>y</u> D. x . y
23	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. (b+c) = a.b +a.c.
24	According to aborption law x+x.y=	A. x B. y C. 1 + x D. 1 + y
25	According to absorption law x. (x+y) =	A. x B. y C. 1+x D. 1+y
26	According to Boolean algebra A+A+.....+A is	A. A B. n A C. 0 D. 1
27	In Boolean algebra A.A.A.A.A	A. 5A B. A C. A⁵ D. 1
28	In Boolean algebra A.0 is	A. 0 B. 1 C. A+0 D. A+1
29	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
30	The circuit that is used for parallel to serial conversion is	A. decoder B. encoder C. multiplexer D. demultiplexer
31	The heart of analog to digital converter (ADC) is	A. comparator B. pulse generator C. voltage source D. current source
		A. one input B. two inputs

32	The half adder circuit has	D. two inputs C. three inputs D. always more than two inputs
33	The number of inputs to full adder are	A. 1 B. 2 C. 3 D. 4
34	In a three input NAND gate, if all the inputs are 1, the output is.	A. 0 B. 1 C. 3 D. indeterminate
35	According to Idempotent law , x + y = _____	A. 1 B. 0 C. x D. x . x
36	Question Image	A. 0 B. 1 C. x
37	Question Image	A. 0 B. 1 C. x
38	According to Boolean algebra x + 1 = _____	A. 0 B. 1 C. x
39	Pick up wrong logical expression	