ECAT Computer Science Chapter 5 Boolean Algebra

Sr	Questions	Answers Choice
1	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
2	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
3	Which of the following gate is two level logic gate.	A. OR gate B. AND gate C. EXCLUSIVE OR gate D. NAND gate
4	Odd parity of a word can be conveniently tested by.	A. OR gate B. XOR gate C. NOR gate D. NAND gate
5	According to Idempotent law , x + y = _____	A. 1 B. 0 C. x D. x . x
6	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
7	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
8	The half adder circuit has	A. one input B. two inputs C. three inputs D. always more than two inputs
9	In a three input NAND gate, if all the inputs are 1, the output is.	A. 0 B. 1 C. 3 D. indeterminate
10	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
11	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.
12	In Boolean algebra A.A.A.A.A	A. 5A B. A C. A⁵ D. 1
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
14	In Boolean algebra A.0 is	A. 0 B. 1

		C. A+0 D. A+1
15	The number of inputs to full adder are	A. 1 B. 2 C. 3 D. 4
16	According to Boolean algebra x + 1 = _____	A. 0 B. 1 C. x
17	According to absorption law x. (x+y) =	A. x B. y C. 1+x D. 1+y
18	Which of the following operations are used by Boolean algebra.?	A. Boolean addition B. Boolean multiplication C. Boolean complementation D. All of the above
19	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
20	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