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	An OR gate has 6 input. The number of input words in its truth table are.	A. 6 B. 32 C. 64 D. 128
3	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
4	Which of the following gate is two level logic gate.	A. OR gate B. AND gate C. EXCLUSIVE OR gate D. NAND gate
5	The heart of analog to digital converter (ADC) is	A. comparator B. pulse generator C. voltage source D. current source
6	In Boolean algebra A.A.A.A.A	A. 5A B. A C. A⁵ D. 1
7	Boolean algebra use which of the following to represent arithmetic quantities.	A. decimal digits B. exponents C. binary bits D. fractions
8	According to Boolean algebra x + 1 = _____	A. 0 B. 1 C. x
9	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
10	According to Idempotent law , x + y = _____	A. 1 B. 0 C. x D. x . x
11	The half adder circuit has	A. one input B. two inputs C. three inputs D. always more than two inputs
12	The circuit that is used for parallel to serial conversion is	A. decoder B. encoder C. multiplexer D. demultiplexer
13	Question Image	A. <u>A + B</u> +<u> C + D</u> C. <u>A</u> + <u>B</u> C<u> + D</u>
14	Which of the following operations are used by Boolean algebra.?	A. Boolean addition B. Boolean multiplication C. Boolean complementation D. All of the above

15	Question Image	A. 0 B. 1 C. x
16	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
17	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
18	The logic device that perform Boolean multiplication is.	A. AND gate B. OR gate C. Inverter D. None of these
19	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
20	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.