



spardhaguru2022



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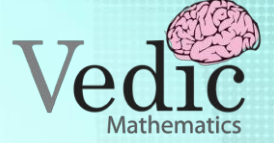
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1) The universal gate is

- a) JAK Electronics
- b) NAND gate
- c) OR gate
- d) AND gate

2) The inverter is

- a) NOT gate
- b) OR gate
- c) AND gate
- d) None of the above

3) The inputs of a NAND gate are connected together. The resulting circuit is

- a) OR gate
- b) AND gate
- c) NOT gate
- d) None of the above

4) The NOR gate is OR gate followed by

- a) AND gate
- b) NAND gate
- c) NOT gate
- d) None of the above

5) The NAND gate is AND gate followed by

- a) NOT gate
- b) OR gate
- c) AND gate
- d) None of the above

6) Digital circuit can be made by the repeated use of

- a) OR gates
- b) NOT gates
- c) NAND gates
- d) None of the above

7) The only function of NOT gate is to

- a) Stop signal
- b) Invert input signal
- c) Act as a universal gate

d) None of the above

8) When an input signal 1 is applied to a NOT gate, the output is

- a) 0
- b) 1
- c) Either 0 & 1
- d) None of the above

9) In Boolean algebra, the bar sign (-) indicates

- a) OR operation
- b) AND operation
- c) NOT operation
- d) None of the above

10) An OR gate has 4 inputs. One input is high and the other three are low. The output is

- a) Low
- b) High
- c) alternately high and low
- d) may be high or low depending on relative magnitude of inputs

11) Both OR and AND gates can have only two inputs.

- a) True
- b) False

12) The output will be a LOW for any case when one or more inputs are zero in a/an

- a) OR Gate
- b) NOT Gate
- c) AND Gate
- d) NAND Gate

13) A single transistor can be used to build gates .

- a) OR Gate
- b) NOT Gate
- c) AND Gate
- d) NAND Gate





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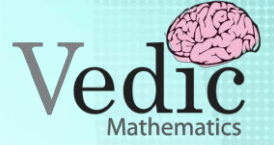
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14) The logic gate that will have HIGH or "1" at its output when any one of its inputs is HIGH is a/an gate.

- a) OR Gate
- b) NOT Gate
- c) AND Gate
- d) NAND Gate

15) NAND circuits are contained in a 7400 NAND IC.

- a) 1
- b) 2
- c) 4
- d) 8

16) Exclusive-OR (XOR) logic gates can be constructed fromlogic gates.

- a) OR gates only
- b) AND gates and NOT gates
- c) AND gates, OR gates, and NOT gates
- d) OR gates and NOT gates

17) truth table entries are necessary for a four-input circuit.

- a) 4
- b) 8
- c) 12
- d) 16

18) A NAND gate has inputs and output.

- a) LOW inputs and LOW outputs
- b) HIGH inputs and HIGH outputs
- c) LOW inputs and HIGH outputs
- d) None of these

19) The basic logic gate whose output is the complement of the input is

- a) OR gate
- b) AND gate
- c) INVERTER gate
- d) Comparator

20) input values will cause an AND logic gate to produce a HIGH output.

- a) At least one input is HIGH
- b) At least one input is LOW
- c) All inputs are HIGH
- d) All inputs are LOW

21) Which number system is used by digital computers?

- a) Decimal
- b) Binary
- c) Octal
- d) Hexadecimal

22) What is the base of binary number system?

- a) 2
- b) 10
- c) 8
- d) 16

23) Which number system has a base of 16?

- a) Decimal
- b) Binary
- c) Octal
- d) Hexadecimal

24) Which of the following is a logic gate?

- a) OR gate
- b) XOR gate
- c) NAND gate
- d) All of the above

25) Which of the following is a NOT gate?

- a) AND gate
- b) OR gate
- c) XOR gate
- d) None of the above

26) Which of the following is a universal gate?

- a) AND gate
- b) OR gate
- c) XOR gate
- d) NAND gate





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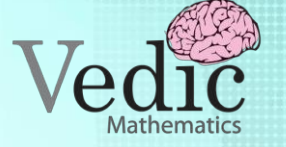
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27) Which of the following is a basic logic gate?

- a) AND gate
- b) XOR gate
- c) NAND gate
- d) All of the above

- 0 1 1 1
- c) 0 1 1 1
- 1 0 0 0
- d) 0 1 0 0
- 1 0 1 1

28) What is the output of an AND gate?

- a) 0
- b) 1
- c) Depends on the input
- d) None of the above

34) What is the truth table for an OR gate?

- a) 0 0 0 1
- 0 1 0 1
- b) 0 0 1 1
- 0 1 1 1
- c) 0 1 1 1
- 1 0 0 0
- d) 0 1 0 0
- 1 0 1 1

29) What is the output of an OR gate?

- a) 0
- b) 1
- c) Depends on the input
- d) None of the above

35) What is the truth table for a NOT gate?

- a) 0 1
- 1 0
- b) 0 0
- 1 1
- c) 1 0
- 0 1
- d) 1 1
- 0 0

30) What is the output of a NOT gate?

- a) 0
- b) 1
- c) Depends on the input
- d) None of the above

31) Which of the following gates is equivalent to an OR gate followed by a NOT gate?

- a) NAND gate
- b) NOR gate
- c) XOR gate
- d) XNOR gate

36) Which of the following gates is equivalent to an XOR gate followed by a NOT gate?

- a) NAND gate
- b) NOR gate
- c) XOR gate
- d) XNOR gate

32) Which of the following gates is equivalent to an AND gate followed by a NOT gate?

- a) NAND gate
- b) NOR gate
- c) XOR gate
- d) XNOR gate

37) What is the truth table for an XOR gate?

- a) 0 0 0 1
- 0 1 1 0
- b) 0 0 1 1
- 0 1 0 1
- c) 0 1 1 0
- 1 0 0 1
- d) 0 1 0 0
- 1 0 1 1

33) What is the truth table for an AND gate?

- a) 0 0 0 1
- 0 1 0 1
- b) 0 0 1 1





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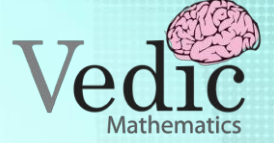
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38) Which of the following is a combinational logic circuit?

- a) Flip-flop
- b) Counter
- c) Decoder
- d) All of the above

39) What is the purpose of a decoder?

- a) To convert a binary code into a decimal number
- b) To convert a decimal number into a binary code
- c) To convert a binary code into a hexadecimal number
- d) None of the above

40) Which of the following is an example of a half adder?

- a) AND gate
- b) OR gate
- c) XOR gate
- d) None of the above

41) What is the purpose of a full adder?

- a) To perform addition of two binary numbers
- b) To perform subtraction of two binary numbers
- c) To perform multiplication of two binary numbers
- d) None of the above

42) Which of the following is an example of a multiplexer?

- a) AND gate
- b) OR gate
- c) XOR gate
- d) None of the above

43) What is the purpose of a multiplexer?

- a) To perform addition of two binary numbers
- b) To select one of several input signals and forward the selected input to a single output line
- c) To convert a binary code into a decimal number
- d) None of the above

44) Which of the following is an example of a demultiplexer?

- a) AND gate
- b) OR gate
- c) XOR gate
- d) None of the above

45) What is the purpose of a demultiplexer?

- a) To perform addition of two binary numbers
- b) To select one of several input signals and forward the selected input to a single output line
- c) To convert a binary code into a decimal number
- d) None of the above

46) Which of the following is an example of a flip-flop?

- a) AND gate
- b) OR gate
- c) XOR gate
- d) None of the above

47) What is the purpose of a flip-flop?

- a) To perform addition of two binary numbers
- b) To store a single bit of information
- c) To convert a binary code into a decimal number
- d) None of the above

48) What is the output of an XNOR gate?

- a) 0
- b) 1
- c) Depends on the input
- d) None of the above

49) What is the truth table for an XNOR gate?

- a) 0 0 1 0
0 1 0 1
- b) 0 0 1 1
0 1 1 0
- c) 0 1 0 1
1 0 1 0
- d) 0 1 1 1

50) How many types of logic families exist?

- a) Two
- b) Six





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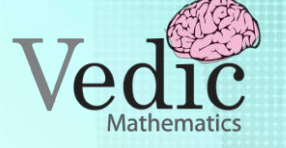
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- c) Four
d) Seven

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