

## Multiple choice Questions Digital Logic Design

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1. How many bits must each word have in one-to-four line de-multiplexer to be implemented using a memory?

- A. 8 bit
- B. 4 bits
- C. 2 bits
- D. 1 bits

Answer - Click Here:

**D**

2. The total amount of memory is depends upon \_\_\_\_\_

- A. The organization of memory
- B. The size of the address bus of the microprocessor
- C. The size of the decoding unit
- D. The structure of memory

Answer - Click Here:

**B**

3. \_\_\_\_\_ can be determined the Instability condition.

- A. table
- B. logic diagram
- C. map
- D. graph

Answer - Click Here:

**B**

4. If we add an inverter at the output of AND gate, what function is produced?

- A. NAND
- B. XOR
- C. OR
- D. NOR

Answer - Click Here:

**A**

5. Which is also known as coincidence detector?

- A. OR gate
- B. NOT gate
- C. AND gate

Search

### MCQS

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D. [NAND gate](#)

Answer - Click Here:

C

6. Transition table include \_\_\_\_\_

- A. squares
- B. oval
- C. rectangles
- D. circles

Answer - Click Here:

A

7. For every possible combination of logical states in the inputs, which table shows the logical state of a digital circuit output?

- A. Function table
- B. ASCII table
- C. Truth table
- D. Routing table

Answer - Click Here:

C

8. Stack is an acronym for \_\_\_\_\_

- A. Flash Memory
- B. LIFO memory
- C. FIFO memory
- D. Bust Flash Memory

Answer - Click Here:

B

9. When an Asynchronous sequential circuit changes two or more binary states variables a Condition occurs called \_\_\_\_\_

- A. [Race condition](#)
- B. deadlock condition
- C. Running condition
- D. None of these

Answer - Click Here:

A

10. A positive OR gate is also a negative

- A. NAND gate
- B. OR gate
- C. NOR gate
- D. AND gate

Answer - Click Here:

D

11. Sum of two [octal numbers](#) "71" and "36" = \_\_\_\_\_

- A. 123
- B. 127
- C. 213
- D. 345

Answer - Click Here:

B

12. Time delay device is memory element of \_\_\_\_\_

- A. asynchronous circuits
- B. synchronous circuits
- C. clocked flip-flops
- D. Unlocked flip-flops

Answer - Click Here:

A

## SET 2: DLD MCQs

1. [Boolean algebra](#) is also called

- A. arithmetic algebra
- B. switching algebra
- C. Both A & B
- D. [linear algebra](#)
- E. algebra
- F. None of there

Answer - Click Here:

B

2. Boolean function must be brought into \_\_\_\_\_ To perform product of max terms

- A. OR terms
- B. AND terms
- C. Both A & B
- D. NOT terms
- E. NAND terms
- F. None of these

Answer - Click Here:

A

3. The [binary number 10101](#) is equivalent to the [decimal](#) number .....

- A. 12
- B. 19
- C. Both A & B
- D. 27
- E. 21
- F. None of these

Answer - Click Here:

E

4. The universal gate is .....

- A. OR gate
- B. NAND gate
- C. Both A & B
- D. AND gate
- E. None of the above
- F. None of these

**Answer - Click Here:**

B

5. According to [boolean algebra](#) absorption law, which of the following is correct?

- A.  $(x+y)=xy$
- B.  $x+xy=x$
- C. Both A & B
- D.  $xy+y=x$
- E.  $x+y=y$
- F. None of these

**Answer - Click Here:**

D

6. A Boolean function may be transformed into

- A. logical graph
- B. logical diagram
- C. Both A & B
- D. map
- E. matrix
- F. None of these

**Answer - Click Here:**

B

7. The inverter is .....

- A. OR gate
- B. NOT gate
- C. Both A & B
- D. AND gate
- E. None of the above

**Answer - Click Here:**

B

8. The resulting circuit of a NAND gate are connected together is\_\_\_\_\_

- A. AND gate
- B. OR gate
- C. Both A & B
- D. NOT gate
- E. None of the above

**Answer - Click Here:**

D

9.  $x*y = y*x$  is the

- A. inverse property
- B. commutative law
- C. Both A & B
- D. associative law
- E. identity element
- F. None of these

Answer - Click Here:

E

10. Minterms are also called

- A. standard product
- B. standard sum
- C. Both A & B
- D. standard division
- E. standard subtraction
- F. None of these

Answer - Click Here:

A

11. OR gate and \_\_\_\_\_ will form The NOR gate?

- A. NAND gate
- B. AND gate
- C. Both A & B
- D. NOT gate
- E. None of the above

Answer - Click Here:

D

12. The NAND gate is AND gate followed by .....

- A. OR gate
- B. NOT gate
- C. Both A & B
- D. AND gate
- E. None of the above

Answer - Click Here:

B

13. Max terms are also called

- A. standard product
- B. standard sum
- C. Both A & B
- D. standard division
- E. standard subtraction
- F. None of these

Answer - Click Here:

B

14. In [Boolean algebra](#) Multiplicative inverse is

- A. 1
- B. 0
- C. Both A & B
- D.  $1/a$
- E. a
- F. None of these

**Answer - Click Here:**

E

15. By the repeated use of ..... Digital circuit can be made

- A. NOT gates
- B. OR gates
- C. Both A & B
- D. NAND gates
- E. None of the above

**Answer - Click Here:**

D

16. The only function of NOT gate is ..... of the following

- A. Invert input signal
- B. Stop signal
- C. both A & B
- D. Act as a universal gate
- E. None of the above

**Answer - Click Here:**

A

17. Boolean algebra is defined as a set of

- A. two values
- B. three values
- C. Both A & B
- D. four values
- E. five values
- F. None of these

**Answer - Click Here:**

A

18. First operator precedence for evaluating Boolean expressions is

- A. AND
- B. parenthesis
- C. Both A & B
- D. OR
- E. NOT
- F. None of these

**Answer - Click Here:**

B

19. The output is..... When an input signal 1 is applied to a NOT gate

- A. 1
- B. 0
- C. Both A & B
- D. Either 0 & 1
- E. None of the above

**Answer - Click Here:**

B

20. The bar sign (-) indicates ....., In Boolean algebra?

- A. AND operation
- B. OR operation
- C. Both A & B
- D. NOT operation
- E. None of the above

**Answer - Click Here:**

D

21. The value of n is ..... when the resolution of an n bit DAC with a maximum input of 5 V is 5 mV.

- A. 9
- B. 8
- C. Both A & B
- D. 10
- E. 11
- F. None of these

**Answer - Click Here:**

D

22. 2's complement of [binary number](#) 0101 is .....

- A. 1111
- B. 1011
- C. Both A & B
- D. 1101
- E. 1110
- F. None of these

**Answer - Click Here:**

B

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

- A. High
- B. Low
- C. Both A & B
- D. alternately high and low
- E. may be high or low depending on the relative magnitude of inputs
- F. None of these

**Answer - Click Here:**

A

24. To convert BCD to seven segments ..... device is used.

- A. Decoder
- B. Encoder
- C. Both A & B
- D. Multiplexer
- E. None of these

**Answer - Click Here:**

A

25. [Decimal number 10](#) is equal to binary number .....

- A. 1010
- B. 1110
- C. Both A & B
- D. 1001
- E. 1000
- F. None of these

**Answer - Click Here:**

A

26. In 2's complement representation the number 11100101 represents the decimal number .....

- A. -31
- B. +37
- C. Both A & B
- D. +27
- E. -27
- F. None of these

**Answer - Click Here:**

E

27. BCD input 1000 is fed to a 7 segment display through a BCD to 7 segment decoder/driver. The segments which will lit up are .....

- A. a, b, c
- B. a, b, d
- C. Both A & B
- D. all
- E. a, b, g, c, d
- F. None of these

**Answer - Click Here:**

D

28. A decade counter skips .....

- A. binary states 0000 to 0011
- B. binary states 1000 to 1111
- C. Both A & B
- D. binary states 1010 to 1111
- E. binary states 1111 to higher
- F. None of these

**Answer - Click Here:**



D

29. .... Number of States A ring counter with 5 flip flops will have?

- A. 10
- B. 5
- C. Both A & B
- D. 32
- E. Infinite
- F. None of these

**Answer - Click Here:**

B



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