

Cs302  
Quiz for MID TERM Exam Solved

Question # 1 of 10 ( Start time: 01:30:33 PM )

Total Marks: 1

Caveman used a number system that has \_\_\_\_\_ distinct shapes:

Select correct option:

- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7



Question # 2 of 10 ( Start time: 01:31:25 PM )

Total Marks: 1

TTL based devices work with a dc supply of \_\_\_\_ Volts

Select correct option:

- ☐ +10
- OK ☐ +5
- ☐ +3
- ☐ 3.3

Question # 3 of 10 ( Start time: 01:31:49 PM )

Total Marks: 1

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The Binary number 1011.101 has an Integer part represented by \_\_\_\_\_ and a fraction part \_\_\_\_\_ separated by a decimal point.

Select correct option:

- ☒ OK ☐ ☐ ☐
- 1011, 101
- 101, 1011
- 101, 1101
- 10111, 11



Question # 4 of 10 ( Start time: 01:32:27 PM )

Total Marks: 1

A certain number is represented in 15-digit decimal number format as “364538761287354”, the exponent of the number is \_\_\_\_\_

Select correct option:

- ☐ ☐ ☐ ☐
- 36
- 64
- 35
- Ok 54

Question # 5 of 10 ( Start time: 01:33:50 PM )

Total Marks: 1

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The OR Gate performs a Boolean \_\_\_\_\_ function

Select correct option:

- ☒ OK Addition
- ☐ Subtraction
- ☐ Multiplication
- ☐

Question # 6 of 10 ( Start time: 01:34:13 PM )

Total Marks: 1

NAND gate is form by connecting \_\_\_\_\_

Select correct option:

Question # 6 of 10 ( Start time: 01:34:13 PM )

Total Marks: 1

NAND gate is form by connecting \_\_\_\_\_

Select correct option:

- ☒ AND Gate and then NOT Gate
- ☐ NOT Gate and then AND Gate
- ☐ AND Gate and then OR Gate

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☐ OR Gate and then AND Gate

Question # 7 of 10 ( Start time: 01:35:00 PM )

Total Marks: 1

The ANSI/IEEE Standard 754 defines a \_\_\_\_\_ Single-Precision Floating Point format for binary numbers.

Select correct option:

☐ 8-bit

☐ 16-bit

OK ☒ 32-bit

☐ 64-bit

Question # 8 of 10 ( Start time: 01:36:21 PM )

Total Marks: 1

A SOP expression having a domain of 3 variables will have a truth table having \_\_\_\_ combinations of inputs and corresponding output values.

Select correct option:

☐ 2

☐ 4

☒ 8

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☐ 16




Question # 9 of 10 ( Start time: 01:37:40 PM )

Total Marks: 1

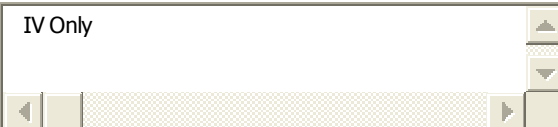
The output of an XOR gate is zero (0) when \_\_\_\_\_ I) All the inputs are zero II) Any of the inputs is zero III) Any of the inputs is one IV) All the inputs are one

Select correct option:

☒ I Only



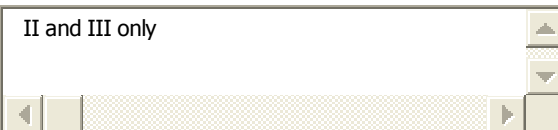
☐ IV Only



ok ☐ I and IV only



☐ II and III only




Question # 10 of 10 ( Start time: 01:38:29 PM )

Total Marks: 1

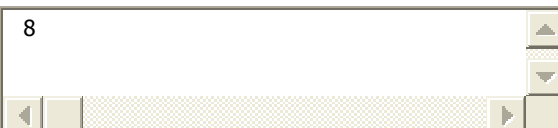
The 4-variable Karnaugh Map (K-Map) has \_\_\_\_\_ cells for min or max terms

Select correct option:

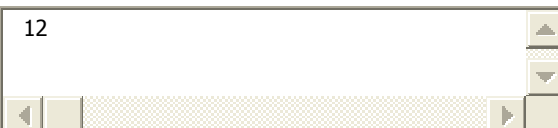
☐ 4



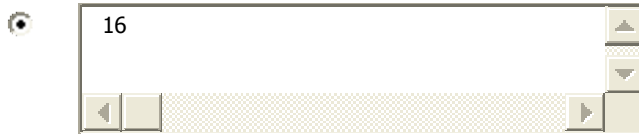
☐ 8



☐ 12



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Which of the number is not a representative of hexadecimal system  
Select correct option:

“1234”

“ABCD”

“1001”

**“DEFH”**

High level Noise Margins (VNH) of CMOS 5 volt series circuits is \_\_\_\_\_  
Select correct option:

0.3 V

0.5 V

**0.9 V**

3.3 V

To get the answer “1” in Boolean addition of three variables, \_\_\_\_\_  
Select correct option:

All three variables must be 1

**One of the variables must be 1**

All three variables must be 0

Any two variables must be 1

The 3-variable Karnaugh Map (K-Map) has \_\_\_\_\_ cells for min or max terms  
Select correct option:

4

**8**

12

16

\_\_\_\_\_ is invalid number of cells in a single group formed by the adjacent cells in K-map

Select correct option:

2

8

**12**

16

Consider  $A=1, B=0, C=1$ . A, B and C represent the input of three bit NAND gate the output of the NAND gate will be \_\_\_\_\_

Select correct option:

Zero

**One**

Undefined

No output as input is invalid

The Binary number 1011.101 has an Integer part represented by \_\_\_\_\_ and a fraction part \_\_\_\_\_ separated by a decimal point.

Select correct option:

**1011, 101**

101, 1011

101, 1101

$1011+101 = \underline{\hspace{2cm}}$   
Select correct option:

**10000**

00001

10011

11001

Adding two octal numbers “36” and “71” result in \_\_\_\_\_  
Select correct option:

213

123

**127**

345

The first Least Most digit in decimal number system has  
Select correct option:

Has position 0 and weight equal to 1

Has position 1 and weight equal to 0

**Has position 1 and weight equal to 10**

Has position 0 and weight equal to 10

Sum term (Max term) is implemented using \_\_\_\_\_ gates  
Select correct option:

**OR**

AND



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NOT  
OR-AND

The OR Gate performs a Boolean \_\_\_\_\_ function  
Select correct option:

**Addition**

Subtraction

Multiplication

Division

Adding two octal numbers "36" and "71" result in \_\_\_\_\_  
Select correct option:

213

123

**127**

345

If we multiply "723" and "34" by representing them in floating point notation i.e. by first, converting them in floating point representation and then multiplying them, the value of mantissa of result will be \_\_\_\_\_  
Select correct option:

24.582

2.4582

24582

**0.24582**

NOR Gate can be used to perform the operation of AND, OR and NOT Gate  
Select correct option:

**TRUE**

FALSE

The three fundamental gates are \_\_\_\_\_  
Select correct option:

AND, NAND, XOR

OR, AND, NAND

NOT, NOR, XOR

**NOT, OR, AND**

A SOP expression having a domain of 3 variables will have a truth table having \_\_\_\_\_ combinations of inputs and corresponding output values.  
Select correct option:

2

4

**8**

16

The 4-variable K-Map has \_\_\_\_\_ rows and \_\_\_\_\_ columns of cells.  
Select correct option:

2, 2

2, 4

4, 2

**4, 4**

NAND gate is form by connecting \_\_\_\_\_  
Select correct option:

**AND Gate and then NOT Gate**

NOT Gate and then AND Gate

AND Gate and then OR Gate

OR Gate and then AND Gate

Question # 4 of 10 ( **Start time: 02:23:02 PM** )

**Total Marks: 1**

A product term is 0 when \_\_\_\_\_.

Select correct option:

- ☒ Any one literal is a 0
- ☐ Any of the literals is 1
- ☐ At least two literals are 1
- ☐ All the literals are 1

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three fundamental gates are \_\_\_\_\_

Select correct option:

- ☐ AND, NAND, XOR
- ☐ OR, AND, NAND
- ☐ NOT, NOR, XOR
- ☒ NOT, OR, AND

[Click here to Save Answer & Move to Next Question](#)

Question # 6 of 10 ( **Start time: 02:23:58 PM** )

Total Marks: 1

The output of the expression  $F=A.B.C$  will be Logic \_\_\_\_\_ when  $A=1$ ,  $B=0$ ,  $C=1$ .

Select correct option:

- ☐ Undefined
- ☐ One
- ☒ Zero
- ☐ No Output as input is invalid.

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Question # 7 of 10 ( Start time: 02:24:42 PM )

Total Marks: 1

The decimal value “20” is equivalent to binary value \_\_\_\_\_

Select correct option:

- ☐ 10011
- ☐ 11001
- ☐ 00101
- ☒ 10100

Question # 8 of 10 ( Start time: 02:25:45 PM )

Total Marks: 1

The number “1259” may belong to \_\_\_\_\_ number system.

Select correct option:

- ☐ Binary number system
- ☐ Octal or Decimal system.
- ☒ Decimal or Hexadecimal system
- ☐ Binary or Hexadecimal system

Question # 9 of 10 ( Start time: 02:26:17 PM )

Total Marks: 1

Excess-8 code assigns \_\_\_\_\_ to “-8”

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Select correct option:

- ☐ 1110
- ☐ 1100
- ☐ 1000
- ☒ 0000

Question # 10 of 10 ( Start time: 02:26:57 PM )

Total Marks: 1

The first Least Most digit in decimal number system has

Select correct option:

- ☐ Has position 0 and weight equal to 1
- ☐ Has position 1 and weight equal to 0
- ☒ Has position 1 and weight equal to 10
- ☐ Has position 0 and weight equal to 10

Question # 1 of 10 ( Start time: 02:29:56 PM )

Total Marks: 1

Decimal number system is Base \_\_\_\_\_ number system

Select correct option:

- ☐ 2
- ☐ 5
- ☒ 10
- ☐ 16

Question # 5 of 10 ( Start time: 02:30:51 PM )

Total Marks: 1

In Caveman number system the value “2” is represented by symbol \_\_\_\_\_

Select correct option:

- ☐ "!"
- ☐ "^"
- ☐ "&"
- ☒ ">"

Question # 6 of 10 ( Start time: 02:32:02 PM )

Total Marks: 1

$A + B = B + A$  is \_\_\_\_\_

Select correct option:

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- ☐ Demorgan's Law
- ☐ Distributive Law
- ☒ Commutative Law
- ☐ Associative Law

Question # 7 of 10 ( Start time: 02:32:47 PM )

Total Marks: 1

The basic building block for a logical circuit is \_\_\_\_\_

Select correct option:

- ☐ A Flip-Flop
- ☒ A Logical Gate
- ☐ An Adder
- ☐ None of given options

Question # 8 of 10 ( Start time: 02:33:24 PM )

Total Marks: 1

“74ALS” stands for \_\_\_\_\_

Select correct option:



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- ☐ Advanced Low-frequency Schottky TTL
- ☐ Advanced Low-dissipation Schottky TTL
- ☒ Advanced Low-Power Schottky TTL
- ☐ Advanced Low-propagation Schottky TTL

Question # 10 of 10 ( Start time: 02:34:18 PM )

Total Marks: 1

The AND Gate performs a logical \_\_\_\_\_function

Select correct option:

- ☐ Addition
- ☐ Subtraction
- ☒ Multiplication
- ☐ Division

Question # 1 of 10 ( Start time: 02:37:35 PM )

Total Marks: 1

Which one is true

Select correct option:

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- ☒ Power consumption of TTL is higher than CMOS
- ☐ Power consumption of CMOS is higher than TTL
- ☐ Both TTL and CMOS have same power consumption
- ☐ Power consumption of both CMOS and TTL depends



Question # 2 of 10 ( Start time: 02:38:22 PM )

Total Marks: 1

NOR gate is form by connecting \_\_\_\_\_

Select correct option:

- ☒ OR Gate and then NOT Gate
- ☐ NOT Gate and then OR Gate
- ☐ AND Gate and then OR Gate
- ☐ OR Gate and then AND Gate

Question # 5 of 10 ( Start time: 02:39:08 PM )

Total Marks: 1

“1101” in signed representation is equivalent to \_\_\_\_\_

Select correct option:

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- ☐ 10
- ☐ 13
- ☐ -10

Question # 6 of 10 ( Start time: 02:40:11 PM )

Total Marks: 1

1011 – 101 = \_\_\_\_\_

Select correct option:

- ☐ 1100
- ☒ 0110
- ☐ 0011
- ☐ 1001

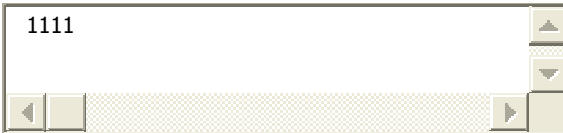
If two numbers in BCD representation generate an invalid BCD number then the binary \_\_\_\_\_ is added to the result

Select correct option:

- ☐ 1001
- ☐ 0110

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☐ 1111



Question # 10 of 10 ( Start time: 02:42:53 PM )

Total Marks: 1

\_\_\_\_\_ is the example of Commutative Law for Multiplication

Select correct option:

- ☒  $AB=BA$
- ☐  $A+B=B+A$
- ☐  $AB+C = A+BC$
- ☐  $A(B+C) = B(A+C)$

Question # 2 of 10 ( Start time: 02:45:21 PM )

Total Marks: 1

Each Octal Number digit can represent a \_\_\_\_\_ Binary Number

Select correct option:

- ☐ 2-bit
- ☒ 3-bit
- ☐ 4-bit

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☐ 7-bit

Question # 3 of 10 ( Start time: 02:45:45 PM )

Total Marks: 1

A standard POS form has \_\_\_\_\_ terms that have all the variables in the domain of the expression.

Select correct option:

☒ Sum

☐ Product

☐ Min

☐ Composite

Question # 7 of 10 ( Start time: 02:47:23 PM )

Total Marks: 1

Suppose we want to transmit the data "10001101", and an "Even-Parity" bit scheme is used to detect errors, the parity bit added to this data will be \_\_\_\_

Select correct option:

☐ "0"

☒ "1"

☐ Both "0" and "1" can be used

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☐ Parity bit is not needed in this case.

Question # 8 of 10 ( Start time: 02:48:26 PM )

Total Marks: 1

A.(B + C) = A.B + A.C is the expression of \_\_\_\_\_

Select correct option:

☐ Demorgan's Law

☐ Commutative Law

☒ Distributive Law

☐ Associative Law

Question # 9 of 10 ( Start time: 02:49:01 PM )

Total Marks: 1

In CMOS 5 Volt series, Input voltage of Logic high signal (VIH) with a ranges from \_\_\_\_ to \_\_\_\_\_ volts.

Select correct option:

☐ 4.5,5

☐ 0, 5

☐ 0, 3.5

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☒ 3.5, 5

Question # 3 of 10 ( Start time: 02:57:00 PM )

Total Marks: 1

The values that exceed the specified range can not be correctly represented and are considered as \_\_\_\_\_

Select correct option:

☒ Overflow

☐ Carry

☐ Parity

☐ Sign value

Question # 10 of 10 ( Start time: 03:01:16 PM )

Total Marks: 1

The range of Excess-8 code is from \_\_\_\_\_ to \_\_\_\_\_

Select correct option:


☒ +7 to -8

☐ +8 to -7

☐ +9 to -8

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☐ -9 to +8




Question # 4 of 10 ( Start time: 03:03:51 PM )

Total Marks: 1

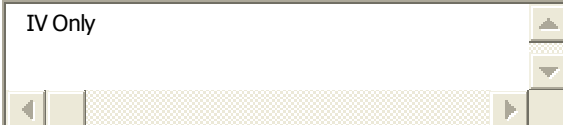
The output of an XNOR gate is 1 when \_\_\_\_\_ I) All the inputs are zero II) Any of the inputs is zero III) Any of the inputs is one IV) All the inputs are one

Select correct option:


☐ I Only



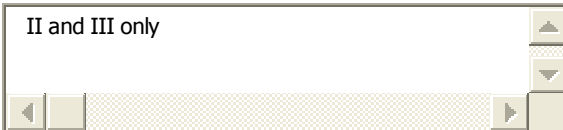
☐ IV Only



☒ I and IV only



☐ II and III only



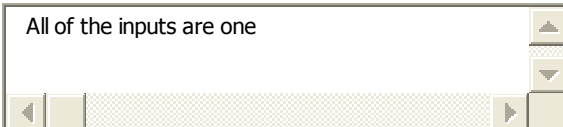
Question # 2 of 10 ( Start time: 03:07:58 PM )

Total Marks: 1

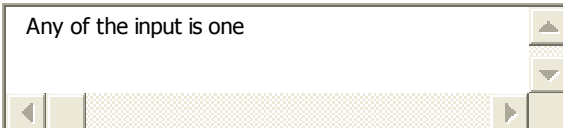
The output of an AND gate is one when \_\_\_\_\_

Select correct option:

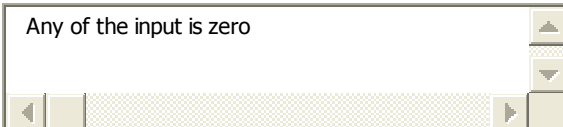
☒ All of the inputs are one



☐ Any of the input is one



☐ Any of the input is zero





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