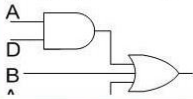


CS302 Final Term Papers By Waqar (File 1)

Question No : 1 of 52 Marks: 1 (Budgeted Time 1 Min)

The diagram given below represents _____



Answer (Please select your correct option)

VuAnswers.com

Demorgans law

Associative law

Product of sum form

Sum of product form

correct

Made by: Waqar Siddhu

Question No : 2 of 52

Marks: 1 (Budgeted Time 1 Min)

The decimal "8" is represented as _____ using Gray-Code.

0011

1100

correct

1000

1010

Made by: Waqar Siddhu

Question No : 3 of 52

Marks: 1 (Budgeted Time 1 Min)

The binary numbers A = 1100 and B = 1001 are applied to the inputs of a comparator. What are the output levels?

$A > B = 1, A < B = 0, A = B = 1$

$A > B = 0, A < B = 1, A = B = 0$

$A > B = 1, A < B = 0, A = B = 0$

$A > B = 0, A < B = 1, A = B = 1$

VuAnswers.com

Made by: Waqar Siddhu

Question No : 4 of 52 Marks: 1 (Budgeted Time 1 Min)

The simplest of the Encoders are the _____ Encoders

Answer (Please select your correct option) **VuAnswers.com**

- 2^{n-1} -to- n
 - n -to- 2^n
 - 2^n -to- n correct
 - n -to- 2^{n+1}
- Made by: Waqar Siddhu**

Question No : 5 of 52 Marks: 1 (Budgeted Time 1 Min)

Using multiplexer as parallel to serial converter requires _____ connected to the multiplexer

Answer (Please select your correct option) **VuAnswers.com**

- A parallel to serial converter circuit correct
 - A counter circuit
 - A BCD to Decimal decoder
 - A 2-to-8 bit decoder
- Made by: Waqar Siddhu**

Question No : 6 of 52 Marks: 1 (Budgeted Time 1 Min)

74HC163 has two enable input pins which are _____ and _____

Answer (Please select your correct option) **VuAnswers.com**

- ENP, ENT correct
 - ENI, ENC
 - ENP, ENC
 - ENT, ENI
- Made by: Waqar Siddhu**

Question No : 7 of 52 Marks: 1 (Budgeted Time 1 Min)

Given the state diagram of an up/down counter, we can find _____

Answer (Please select your correct option) **VuAnswers.com**

- The next state of a given present state
 - The previous state of a given present state
 - Both the next and previous states of a given state correct
 - The state diagram shows only the inputs/outputs of a given states
- Made by: Waqar Siddhu**

Question No : 8 of 52 Marks: 1 (Budgeted Time 1 Min)

A 4-bit parallel in / serial out shift register contains the value "0100", _____ clock signal(s) will be required to shift the value completely out of the register (i.e. to set the register to 0).

Answer (Please select your correct option) **VuAnswers.com**

- 1
 - 2
 - 3
 - 4 correct
- Made by: Waqar Siddhu**

Question No : 9 of 52 Marks: 1 (Budgeted Time 1 Min)

$(A + B)(A + \bar{B} + C)(\bar{A} + C)$ is an example of _____

Answer (Please select your correct option) **VuAnswers.com**

- Product of sum form correct
 - Sum of product form
 - Demorgans law
 - Associative law
- Made by: Waqar Siddhu**

For More Visit **VU Answer**

Question No : 10 of 52

Marks: 1 (Budgeted Time 1 Min)

The 2's complement method is used to _____

Answer (Please select your correct option)

VuAnswers.com

- Convert binary numbers to decimal
- Convert decimal numbers to binary
- Represent signed numbers
- Represent positive numbers

correct

Made by: Waqar Siddhu

Question No : 11 of 52

Marks: 1 (Budgeted Time 1 Min)

$1011 - 101 =$ _____

Note: both values are in binary

Answer (Please select your correct option)

VuAnswers.com

- 1100
- 0110
- 0011
- 1001

correct

Made by: Waqar Siddhu

Question No : 12 of 52

Marks: 1 (Budgeted Time 1 Min)

At $J = 1$, and $K = 1$, output of JK Flip-flop will be _____

Answer (Please select your correct option)

VuAnswers.com

- Set
- Reset
- Toggle
- Invalid

correct

Made by: Waqar Siddhu

For More Visit **VU Answer**

For More Visit **VU Answer**

Question No : 13 of 52

Marks: 1 (Budgeted Time 1 Min)

When one 1 is taken as a group on a Karnaugh map, the number of variables eliminated from the output expression is/are _____

Answer (Please select your correct option)

VuAnswers.com

0

1

2

correct

3

Made by: Waqar Siddhu

Question No : 14 of 52

Marks: 1 (Budgeted Time 1 Min)

Using 15 digits (including the sign digit) notation the largest number that can be represented is _____

Answer (Please select your correct option)

VuAnswers.com

$999,999,999,999 \times 10^{100}$

$0.999,999,999,999 \times 10^{100}$

$999,999,999,999 \times 10^{99}$

$0.999,999,999,999 \times 10^{99}$

correct

Made by: Waqar Siddhu

Question No : 15 of 52

Marks: 1 (Budgeted Time 1 Min)

The _____ output of first 74HC163 counter is connected to _____ and _____ inputs of other 74HC163 counter to form a single cascaded counter

Answer (Please select your correct option)

VuAnswers.com

RCO, ENT, ENP

correct

ENT, RCO, ENP

ENP, RCO, ENT

RCO, ENI, ENC

Made by: Waqar Siddhu

For More Visit **VU Answer**

Question No : 16 of 52 Marks: 1 (Budgeted Time 1 Min)

The Sequential circuit whose output depends on the current state and the input is known as _____.

Answer (Please select your correct option)

VuAnswers.com

Moore Machine

Mealy Machine

correct

Counter

Flip Flop

Made by: Waqar Siddhu

Question No : 17 of 52 Marks: 1 (Budgeted Time 1 Min)

The best state assignment tends to _____.

Answer (Please select your correct option)

VuAnswers.com

Maximizes the number of state variables that don't change in a group of related states

correct

Minimizes the number of state variables that don't change in a group of related states

Minimizes the equivalent states

Maximizes the equivalent states

Made by: Waqar Siddhu

Question No : 18 of 52 Marks: 1 (Budgeted Time 1 Min)

In _____, the \bar{Q} output of the last flip-flop of the shift register is connected to the data input of the first flip-flop.

Answer (Please select your correct option)

VuAnswers.com

Moore machine

Mealy machine

Johnson counter

correct

Ring counter

Made by: Waqar Siddhu

For More Visit **VU Answer**

Question No : 19 of 52

Marks: 1 (Budgeted Time 1 Min)

In _____, the Q output of the last flip-flop of the shift register is connected to the data input of the first flip-flop of the shift register.

Answer (Please select your correct option)

VuAnswers.com

- Moore machine
- Mealy machine
- Johnson counter
- Ring counter

correct

Made by: Waqar Siddhu

Question No : 20 of 52

Marks: 1 (Budgeted Time 1 Min)

Flip flops are also called _____

Answer (Please select your correct option)

VuAnswers.com

- Bi-stable dualvibrators
- Bi-stable transformer
- Bi-stable multivibrators
- Bi-stable singlevibrators

correct

Made by: Waqar Siddhu

Question No : 21 of 52

Marks: 1 (Budgeted Time 1 Min)

If $S=1$ and $R=0$, then $Q(t+1) =$ _____ for positive edge triggered flip-flop

Answer (Please select your correct option)

VuAnswers.com

- 0
- 1
- Invalid
- Input is invalid

correct

Made by: Waqar Siddhu

For More Visit **VU Answer**

Question No : 22 of 52 Marks: 1 (Budgeted Time 1 Min)

The operation of J-K flip-flop is similar to that of the SR flip-flop except that the J-K flip-flop _____.

Answer (Please select your correct option)

VuAnswers.com

- Doesn't have an invalid state
- Sets to clear when both $J = 0$ and $K = 0$
- It does not show transition on change in pulse
- It does not accept asynchronous inputs

Made by: Waqar Siddhu

Question No : 23 of 52 Marks: 1 (Budgeted Time 1 Min)

_____ Flip-flops are obsolete now.

Answer (Please select your correct option)

VuAnswers.com

- Edge-triggered
- Master-Slave
- T-Flip-flop
- D-Flip-flop

correct

Made by: Waqar Siddhu

Question No : 24 of 52 Marks: 1 (Budgeted Time 1 Min)

Bi-stable devices remain in either of their _____ states unless the inputs force the device to switch its state.

Answer (Please select your correct option)

VuAnswers.com

- Ten
- Eight
- Three
- Two

correct

Made by: Waqar Siddhu

For More Visit **VU Answer**

Question No : 25 of 52

Marks: 1 (Budgeted Time 1 Min)

The counter states can be determined by the formula: _____ ("n" represents the total number of flip-flops).

Answer (Please select your correct option)

VuAnswers.com

- n^2 (n raise to power 2)
- n^2-1 (n raise to power 2 and then minus 1)
- 2^n (2 raise to power n)
- 2^n-1 (2 raise to power n and then minus 1)

correct

Made by: Waqar Siddhu

Question No : 26 of 52

Marks: 1 (Budgeted Time 1 Min)

RCO Stands for _____

Answer (Please select your correct option)

VuAnswers.com

- Reconfiguration Counter Output
- Reconfiguration Clock Output
- Ripple Counter Output
- Ripple Clock Output

correct

Made by: Waqar Siddhu

Question No : 27 of 52

Marks: 1 (Budgeted Time 1 Min)

The Sequential circuit, whose output is determined by the current state only is known as _____.

Answer (Please select your correct option)

VuAnswers.com

- Moore Machine
- Mealy Machine
- Counter
- Flip Flop

correct

Made by: Waqar Siddhu

For More Visit **VU Answer**

Question No : 28 of 52 Marks: 1 (Budgeted Time 1 Min)

A GAL is essentially a _____.

Non-reprogrammable PAL

PAL that is programmed only by the manufacturer

Reprogrammable PAL

Reprogrammable PAL

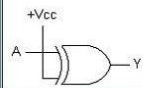
correct

VuAnswers.com

Made by: Waqar Siddhu

Question No : 29 of 52 Marks: 1 (Budgeted Time 1 Min)

The output of this circuit is always _____.



1

0

A

\bar{A}

correct

VuAnswers.com

Made by: Waqar Siddhu

Question No : 30 of 52 Marks: 1 (Budgeted Time 1 Min)

Which is not characteristic of a shift register?

Serial in/parallel in

Serial in/parallel out

Parallel in/serial out

Parallel in/parallel out

correct

VuAnswers.com

Made by: Waqar Siddhu

Question No : 31 of 52 Marks: 1 (Budgeted Time 1 Min)

A Nibble consists of ____ bits

Answer (Please select your correct option)

VuAnswers.com

2

4

correct

8

16

Made by: Waqar Siddhu

Question No : 32 of 52 Marks: 1 (Budgeted Time 1 Min)

Smallest unit of binary data is a _____

Answer (Please select your correct option)

VuAnswers.com

Bit

correct

Nibble

Byte

Word

Made by: Waqar Siddhu

Question No : 33 of 52 Marks: 1 (Budgeted Time 1 Min)

The _____ of a ROM is the time it takes for the data to appear at the Data Output of the ROM chip after an address is applied at the address input lines

Answer (Please select your correct option)

VuAnswers.com

Write Time

Refresh Time

Refresh Time

Access Time

correct

Made by: Waqar Siddhu

For More Visit **VU Answer**

Question No : 34 of 52

Marks: 1 (Budgeted Time 1 Min)

In _____, all the columns in the same row are either read or written.

Answer (Please select your correct option)

VuAnswers.com

Sequential Access

MOS Access

FAST Mode Page Access

correct

None of given options

Made by: Waqar Siddhu

Question No : 35 of 52

Marks: 1 (Budgeted Time 1 Min)

FIFO is an acronym for _____

Answer (Please select your correct option)

VuAnswers.com

First In, First Out

correct

Fly in, Fly Out

Fast in, Fast Out

None of given options

Made by: Waqar Siddhu

Question No : 36 of 52

Marks: 1 (Budgeted Time 1 Min)

If the FIFO Memory output is already filled with data then _____

Answer (Please select your correct option)

VuAnswers.com

It is locked, no data is allowed to enter

It is not locked, the new data overwrites the previous data.

Previous data is swapped out of memory and new data enters

correct

None of given options

Made by: Waqar Siddhu

For More Visit **VU Answer**

Question No : 37 of 52 Marks: 1 (Budgeted Time 1 Min)

Stack is a _____

Answer (Please select your correct option) **VuAnswers.com**

- Bust Flash Memory
 - FIFO memory
 - LIFO memory correct
 - Flash Memory
- Made by: Waqar Siddhu**

Question No : 38 of 52 Marks: 1 (Budgeted Time 1 Min)

A flash A/D converter uses :

Answer (Please select your correct option) **VuAnswers.com**

- Counters correct not sure
 - Flip-flops
 - Op-amps
 - An integrator
- Made by: Waqar Siddhu**

Question No : 39 of 52 Marks: 1 (Budgeted Time 1 Min)

LUT is an acronym for _____

Answer (Please select your correct option) **VuAnswers.com**

- Look Up Table correct
 - Local User Terminal
 - Least Upper Time Period
 - None of given options
- Made by: Waqar Siddhu**

For More Visit **VU Answer**

Question No : 40 of 52

Marks: 1 (Budgeted Time 1 Min)

According to the sampling theorem, the sampling frequency should be :

- Answer (Please select your correct option)
- Greater than the lowest signal frequency
 - Less than half the lowest signal frequency
 - Greater than twice the highest signal frequency
 - Less than half the highest signal frequency

VuAnswers.com

correct

Made by: Waqar Siddhu

Question No : 41 of 52

Marks: 2 (Budgeted Time 4 Min)

Divide binary number "1101" by binary number "101", write down all the steps.

Answer (Please [click here](#) to Add Answer)

VuAnswers.com



Made by: Waqar Siddhu

Question No : 42 of 52

Marks: 2 (Budgeted Time 4 Min)

Name the single change which can be made to convert a combinational circuit to a sequential circuit?

Answer (Please [click here](#) to Add Answer)

VuAnswers.com



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For More Visit **VU Answer**

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Question No : 43 of 52 Marks: 2 (Budgeted Time 4 Min)

Write down the names of two basic operations which are performed on memory?

Answer (Please [click here](#) to Add Answer)

VuAnswers.com

Normal Arial 12 B I U

Made by: Waqar Siddhu

Question No : 44 of 52 Marks: 2 (Budgeted Time 4 Min)

What is the function of row and column decoders?

Answer (Please [click here](#) to Add Answer)

VuAnswers.com

Normal Arial 12 B I U

Large memories such as the 16 KB memory have row and column decoders that split the input address into a row address and a column address and activate a row and column select lines respectively.

Made by: Waqar Siddhu

Question No : 45 of 52 Marks: 3 (Budgeted Time 6 Min)

Following two waves are applied at 2-input AND gate, Draw the output waveform of this gate.

A 0 1 0 1 0 1 0 1 0 1 0
B 0 0 1 1 0 0 1 1 0

Answer (Please [click here](#) to Add Answer)

VuAnswers.com

Normal Arial 12 B I U

Made by: Waqar Siddhu

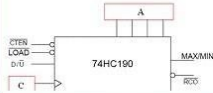
For More Visit **VU Answer**

For More Visit **VU Answer**

Question No : 46 of 52

Marks: 3 (Budgeted Time 6 Min)

You are given the block diagram of 74HC190 integrated circuit of 4-bit synchronous up/down counter, Name the pins which are under red boxes.



Answer (Please [click here](#) to Add Answer)

VuAnswers.com

Rich text editor toolbar with options for font style, size, color, background color, bold, italic, underline, link, unlink, list, and image. The text area is empty.

Made by: Waqar Siddhu

Question No : 47 of 52

Marks: 3 (Budgeted Time 6 Min)

Write down three characteristics of serial in / serial out 4-bit left shift register.

Empty text area for the answer to Question 47.

Answer (Please [click here](#) to Add Answer)

VuAnswers.com

Rich text editor toolbar with options for font style, size, color, background color, bold, italic, underline, link, unlink, list, and image. The text area is empty.

Made by: Waqar Siddhu

Question No : 48 of 52

Marks: 3 (Budgeted Time 6 Min)

Draw the circuit diagram of operational amplifier used as an inverting amplifier.

Empty text area for the answer to Question 48.

Answer (Please [click here](#) to Add Answer)

VuAnswers.com

Rich text editor toolbar with options for font style, size, color, background color, bold, italic, underline, link, unlink, list, and image. The text area is empty.

Made by: Waqar Siddhu

For More Visit **VU Answer**

For More Visit **VU Answer**

Question No : 49 of 52

Marks: 5 (Budgeted Time 10 Min)

Convert the following Boolean expression into standard SOP form:

$$ABC + \bar{A}B + ABCD$$

Answer (Please [click here](#) to Add Answer)

VuAnswers.com



Made by: Waqar Siddhu

Question No : 50 of 52

Marks: 5 (Budgeted Time 10 Min)

Draw the next-state table of a 3-bit Up Counter.

Answer (Please [click here](#) to Add Answer)

VuAnswers.com



Made by: Waqar Siddhu

For More Visit **VU Answer**

Question No : 51 of 52


Marks: 5 (Budgeted Time 10 Min)

Draw a complete test vector table for a 3-bit up/down counter using the following information.

- X is excitation input (if X=0, counter counts upward and vice versa).
- When the Clear input is 0 the output is cleared to 000 irrespective of the X.
- When the Clear input is set to 1 counter functions normally.
- Clear, Clock and X are inputs for up-down counter.

Answer (Please [click here](#) to Add Answer)

VuAnswers.com



Made by: Waqar Siddhu

Question No : 52 of 52

Marks: 5 (Budgeted Time 10 Min)

Analog to Digital converters exhibit different types of errors during their conversion operation. Explain at least two.

Answer (Please [click here](#) to Add Answer)

VuAnswers.com



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