

**CS302 Quiz No.01 Solution 2022 (45 Quiz)**

**Preparation Midterm**

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**QUESTION NO: 01**

Which of the following is the octal equivalent of 28 decimal numbers?

**34**

**QUESTION NO: 02**

The maximum decimal number that can be represented using the 64-bit unsigned representation is \_\_\_\_\_.

**$(2^{64})-1$**

**QUESTION NO: 03**

In a 4-variable K-map, a 2-variable product term is produced by

**A 4-cell group of 1s**

**QUESTION NO: 04**

For a Standard SOP expression, a \_\_\_ is placed in the cell corresponding to the product term present in the expression.

**1**

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**QUESTION NO: 05**

The \_\_\_ inputs select/deselects both the decoders simultaneously.

**Enable**

**QUESTION NO: 06**

NAND and \_\_\_ gates are known as Universal Gates.

**NOR**

**QUESTION NO: 07**

The declaration section of ABEL generally includes the device declaration, \_\_\_ declarations and set declarations.

**Pin**

**QUESTION NO: 08**

An SOP expression having a domain of 2 variables will have a truth table having \_\_\_ combinations of inputs and corresponding output values.

**4**

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**QUESTION NO: 09**

In the 32-bit Single Precision Floating formation, the exponent value \_\_\_\_\_ is reserved to represent 0 exponents.

**0**

**QUESTION NO: 10**

CMOS technology is characterized by low power dissipation with \_\_\_\_\_ switching speeds.

**Slow**

**QUESTION NO: 11**

The complement of a variable is always

**The inverse of the variable**

**QUESTION NO: 12**

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

**Distributive Law**

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**QUESTION NO: 13**

If the number 2025 is represented in floating point, then exponent is \_\_\_\_\_.

**3**

**QUESTION NO: 14**

Excess-8 code of -6 is \_\_\_\_\_.

**0010**

**QUESTION NO: 15**

A 3-variable Karnaugh map has

**Eight cells**

**QUESTION NO: 16**

To represent in digital value, the number of digit (0s and 1s) that represents a quantity is \_\_\_\_\_ to the range of values that are to be represented.

**Proportional**

**QUESTION NO: 17**

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

**Both “0” and “1” can be used**

**QUESTION NO: 18**

The carry propagation delay problem in parallel binary adder can be solved by \_\_\_\_\_.

**Using two full adders**

**QUESTION NO: 19**

Two 2-input, 4-bit multiplexers 74X157 can be connected to implement a \_\_\_\_\_ multiplexer.

**2-input, 8-bit**

**QUESTION NO: 20**

The octal equivalent of the following binary number is \_\_\_\_\_.

**117**

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**QUESTION NO: 21**

A' is written is ABEL as \_\_\_\_\_.

**A**

**QUESTION NO: 22**

Which of the following is the hexadecimal equivalent of 28?

**1C**

**QUESTION NO: 23**

High Level Noise Margins (VNH) of CMOS 5 volt series circuits is \_\_\_\_\_.

**0.9 V**

**QUESTION NO: 24**

Adjacent 1s detector circuit will have active high output for the input.

**0011**

**QUESTION NO: 25**

Modern information techniques are relying more on \_\_\_\_ transmission.

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**Digital**

**QUESTION NO: 26**

The \_\_\_ select input(s) of the two 4-input multiplexers are common in Dual 4-input multiplexer.

**Two**

**QUESTION NO: 27**

How many data select lines are required for selecting eight inputs?

**3**

**QUESTION NO: 28**

Select the mode of programming in which GAL 16V8 can be programmed.

**All of the given option**

**QUESTION NO: 29**

\_\_\_\_\_ has the fastest switching speed and low power requirement.

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**Advanced low power Scotty**

**QUESTION NO: 30**

The PLA can be programmed to give an output of constant \_\_\_ or \_\_\_.

**0.1**

**QUESTION NO: 31**

The minimum time for which the input signal has to be maintained at the input of flip-flop is called \_ of the flip-flop.

**Hold time**

**QUESTION NO: 32**

A Divide-by-20 counter can be achieved by using

**Flip-Flop and DIV 10**

**QUESTION NO: 33**

Each stage of Master-slave flip-flop works at \_ of the clock signal.

**One half**

**QUESTION NO: 34**

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In Master-Slave flip-flop the clock signal is connected to slave flip-flop using \_

**NOT**

**QUESTION NO: 35**

A 4-bit binary UP/DOWN counter is in the binary state zero. The next state in the DOWN mode is \_

**1111**

**QUESTION NO: 36**

\_ is said to occur when multiple internal variables change due to change in one input variable

**Race condition**

**QUESTION NO: 37**

The Synchronous counters are also known as Ripple Counters:

**False**

**QUESTION NO: 38**

The minimum time required for the input logic levels to remain stable before the clock transition occurs is known as the \_

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**Set-up time**

**QUESTION NO: 39**

The  $n$  flip-flops store \_ states.

**$2^n$**

**QUESTION NO: 40**

When the \_ Hz sampling interval is selected, the signal at the output of the J-K flip-flop has a time period of \_

**1, 2**

**QUESTION NO: 41**

A positive edge-triggered flip-flop changes its state when \_

**Low-to-high transition of clock**

**QUESTION NO: 42**

A decade counter is \_

**Mod-10 counter**

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