Osmania University Common Entrance Test

Question Paper Name:	M Sc Electronics 11th July 2019 Shift 1
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Share Answer Key With Delivery Engine:	Yes
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M.Sc. Electronics

Group Number :	1
Group Id :	34197959
Group Maximum Duration :	0
Group Minimum Duration :	90
Revisit allowed for view? :	No
Revisit allowed for edit? :	No
Break time:	0
Group Marks:	100

PART A

Section Id :	34197978
Section Number :	1
Section type :	Online
Mandatory or Optional:	Mandatory
Number of Questions:	100
Number of Questions to be attempted:	100
Section Marks:	100
Display Number Panel:	Yes
Group All Questions:	No

Sub-Section Number:	1
Sub-Section Id:	34197979
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 3419795642 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The reciprocal of the impedance is called as

Options :

1. Resistance

2. conductance

3. admittance

4. susceptance

Question Number : 2 Question Id : 3419795643 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Form factor for the ac instruments is

Options :

1. 0.01

2. 0.11

3. 1.11

4. 0.10

Question Number : 3 Question Id : 3419795644 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If $\tan\phi=1/\omega RC$, it means

Options :

1. current leads the voltage

2. current lags the voltage

3. voltage leads the current

4. current is equal to voltage

Question Number : 4 Question Id : 3419795645 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Superheterodyne circuit produces a fixed intermediate frequency of

Options :

1. 455Hz

2. 455kHz

3. 455MHz

4. 455GHz

Question Number : 5 Question Id : 3419795646 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The length of the transmitting antenna should be approximately ….. to the wavelength of the wave.

Options :

1. double

2. equal

3. half

4. 33.3%

Question Number : 6 Question Id : 3419795647 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The FET has…..input impedance and ….noise level.

Options :

1. Low, high

2. low, low

3. high, low

4. high, high

Question Number : 7 Question Id : 3419795648 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The ratio of emf in one mesh to the current in another mesh is called

Options :

1. simple impedance

2. transfer impedance

3. input impedance

4. output impedance

Question Number : 8 Question Id : 3419795649 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The Norton's equivalent circuit consists of

Options :

1. constant voltage source

2. constant current source

3. variable voltage source

4. variable current source

Question Number : 9 Question Id : 3419795650 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Open circuit reverse voltage gain is defined as

Options :

1. $h_{11}=\partial v_1/\partial i_1$

2. $h_{12}=\partial v_1/\partial v_2$

3. $h_{21}=\partial i_2/\partial i_1$

4. $h_{22}=\partial i_2/\partial v_2$

Question Number : 10 Question Id : 3419795651 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

At resonance, potential difference across L and C are

Options :

1. equal and 0° out of phase

2. equal and 90° out of phase

3. equal and 180°out of phase

4. equal and 0° phase difference.

Question Number : 11 Question Id : 3419795652 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The current and voltage are in phase at the frequency where

Options :

1. $X_L=X_C$

2. $X_L<X_C$

3. $X_L>X_C$

4. $X_L\neq X_C$

Question Number : 12 Question Id : 3419795653 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The Q-factor for series resonance circuit is written as

Options :

1. $Q_s=1/R\sqrt{(\frac{L}{C})}$

2. $Q_s= 1/R\sqrt{(C/L)}$

3. $Q_s=\sqrt{(LC)}/R$

4. $Q_s=\sqrt{(L/RC)}$

Question Number : 13 Question Id : 3419795654 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Sharp resonance with high Q has a ..... bandwidth.

Options :

1. zero

2. wide

3. narrow

4. intermediate

Question Number : 14 Question Id : 3419795655 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Dual beam CRO has …… electronic beams.

Options :

1. one

2. two

3. many

4. no

Question Number : 15 Question Id : 3419795656 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Deflection sensitivity of a CRT is 0.01 mm/V. The shift produced in the spot when 400V are applied to vertical plates is

Options :

1. 0.01x400

2. 0.01/400

3. 400/0.01

4. 1/(400x0.01)

Question Number : 16 Question Id : 3419795657 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If a sinusoidal voltage is applied to vertical plates only then we see…….on the screen.

Options :

1. a bright spot at the centre

2. vertical line

3. horizontal line

4. Lissajous figure

Question Number : 17 Question Id : 3419795658 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Depletion region contain…….

Options :

1. holes

2. electrons

3. space charge

4. holes and electrons

Question Number : 18 Question Id : 3419795659 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The diffusion capacitance …… rapidly with …….bias.

Options :

1. increases, forward

2. increases, reverse

3. decreases, forward

4. decreases, reverse

Question Number : 19 Question Id : 3419795660 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The resistance property is …..in forward bias and …… in reverse bias.

Options :

1. low, high

2. low, low

3. high, low

4. high, high

Question Number : 20 Question Id : 3419795661 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The Zener breakdown occurs at a ……voltage.

Options :

1. higher

2. lower

3. 0.7

4. zero

Question Number : 21 Question Id : 3419795662 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A junction diode which acts as a variable capacitor is called

Options :

1. tunnel diode

2. point diode

3. zener diode

4. varactor diode

Question Number : 22 Question Id : 3419795663 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The tunnel diodes are made of highly conductive semiconductors because of

Options :

1. low electron mobility

2. high electron mobility

3. wide depletion region

4. narrow depletion region

Question Number : 23 Question Id : 3419795664 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In junction transistor, the emitter is ……doped.

Options :

1. lightly

2. moderately

3. heavily

4. not

Question Number : 24 Question Id : 3419795665 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Input resistance in common base configuration is

Options :

1. low

2. high

3. very low

4. very high

Question Number : 25 Question Id : 3419795666 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In common emitter configuration, if α=0.9, β will be

Options :

1. 99

2. 49

3. 9

4. 0.1

Question Number : 26 Question Id : 3419795667 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

DC loadline gives the locus of …….under ……..

Options :

1. V_{CE} and I_{CE}, dc conditions

2. V_{CE}, dc conditions

3. I_{CE}, dc conditions

4. V_{CE} and I_{CE}, ac conditions

Question Number : 27 Question Id : 3419795668 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The current through the FET is controlled by the application of ……field across the conducting region.

Options :

1. electric

2. magnetic

3. Electro-magnetic

4. zero

Question Number : 28 Question Id : 3419795669 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If a change in gate voltage of 0.1V causes a change in drain current of 0.3mA, then transconductance of FET is

Options :

1. 0.3V/mA

2. 3 V/mA

3. 3 mA/V

4. 0.3 mA/V

Question Number : 29 Question Id : 3419795670 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

MOSFET has

Options :

1. very high gate leakage current

2. very low gate leakage current

3. infinite gate leakage current

4. zero gate leakage current

Question Number : 30 Question Id : 3419795671 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

When UJT is triggered, the emitter current …….regeneratively.

Options :

1. decreases

2. increases

3. becomes zero

4. remains constant

Question Number : 31 Question Id : 3419795672 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The discharging of a capacitor through UJT can develop a …… wave as output waveform.

Options :

1. sine

2. triangular

3. saw-tooth

4. square

Question Number : 32 Question Id : 3419795673 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A SCR has……..pn junctions.

Options :

1. one

2. two

3. three

4. four

Question Number : 33 Question Id : 3419795674 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A SCR is ……switch.

Options :

1. unidirectional

2. bidirectional

3. multidirectional

4. versatile

Question Number : 34 Question Id : 3419795675 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

SCR is turned off when the anode current falls below

Options :

1. saturation current

2. latching current

3. holding current

4. breakdown voltage

Question Number : 35 Question Id : 3419795676 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Dark current in photodiode corresponds to ……current that exists.

Options :

1. forward saturation

2. zero

3. reverse saturation

4. infinite

Question Number : 36 Question Id : 3419795677 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If photon energy is equal to bandgap energy, such diodes are called

Options :

1. photodiode

2. LED

3. LCR

4. tunnel diode

Question Number : 37 Question Id : 3419795678 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In half wave rectification, maximum of .....of ac power is converted into dc power.

Options :

1. 60.4%

2. 64%

3. 40.6%

4. 46%

Question Number : 38 Question Id : 3419795679 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

I_{rms} in full wave rectification is given by

Options :

1. $I_{max}/2$

2. $I_{max}/\sqrt{2}$

3. $I_{max}\sqrt{2}$

4. $\sqrt{2}/I_{max}$

Question Number : 39 Question Id : 3419795680 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Filter circuit allows……to reach the load.

Options :

1. ac components

2. dc components

3. ac and dc components together

4. only ac components and blocks dc components

Question Number : 40 Question Id : 3419795681 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A regulated power supply consists of

Options :

1. an ordinary power supply only

2. a voltage regulator device only

3. an ordinary power supply along with voltage regulator device

4. an ordinary power supply and current regulating circuits

Question Number : 41 Question Id : 3419795682 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The output of 7805 regulator is

Options :

1. -5V fixed

2. +5V to +15V fixed

3. -5V to +15V fixed

4. +5V fixed

Question Number : 42 Question Id : 3419795683 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Higher power conversion efficiency is an important advantage of a

Options :

1. series regulated power supply

2. shunt regulated power supply

3. variable power supply

4. SMPS

Question Number : 43 Question Id : 3419795684 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

CMRR is generally expressed in

Options :

1. volts

2. amps

3. dB

4. ohms

Question Number : 44 Question Id : 3419795685 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The difference between two input bias current is called as

Options :

1. input bias current

2. input offset current

3. input impedance

4. slew rate

Question Number : 45 Question Id : 3419795686 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

There is a phase difference of ……..between input and output voltages in common emitter configuration.

Options :

1. 90^0

2. 180^0

3. 0^0

4. 45^0

Question Number : 46 Question Id : 3419795687 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The ……due to negative feedback increases.

Options :

1. gain

2. bandwidth

3. input impedance

4. bandwidth

Question Number : 47 Question Id : 3419795688 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If ……..feedback is used, the net noise in the output is……..

Options :

1. positive, reduced

2. negative, reduced

3. positive, increases

4. negative, increases.

Question Number : 48 Question Id : 3419795689 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A special case of ……is called unity follower.

Options :

1. inverting amplifier

2. noninverting amplifier

3. difference amplifier

4. summing amplifier

Question Number : 49 Question Id : 3419795690 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Slew rate is a measure of how fast the ……..can change.

Options :

1. input voltage

2. input current

3. output voltage

4. output current

Question Number : 50 Question Id : 3419795691 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The op-amp may be used as an integrator if the feedback element is

Options :

1. R

2. L

3. C

4. combination of R and C

Question Number : 51 Question Id : 3419795692 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Zero crossing detector system is the application of op-amp as

Options :

1. voltage follower

2. differentiator

3. integrator

4. comparator

Question Number : 52 Question Id : 3419795693 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In 555 as a monostable multivibrator, output remains stable in ……state.

Options :

1. one

2. two

3. synchronized

4. constant

Question Number : 53 Question Id : 3419795694 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Astable mutivibrator has ……states.

Options :

1. one quasistable

2. two quasistable

3. one stable

4. two stable

Question Number : 54 Question Id : 3419795695 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In logarithm current amplifier,

Options :

1. output voltage varies as logarithm of input voltage

2. output current varies as logarithm of input voltage

3. output voltage varies as logarithm of input current

4. output voltage varies as logarithm of output current

Question Number : 55 Question Id : 3419795696 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In amplitude modulation, only the……of the carrier wave is changed in accordance with the intensity of the signal.

Options :

1. amplitude

2. frequency

3. amplitude and frequency

4. phase

Question Number : 56 Question Id : 3419795697 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The value of modulation factor depends upon the ……of carrier and signal.

Options :

1. amplitude

2. frequency

3. phase

4. amplitude and frequency

Question Number : 57 Question Id : 3419795698 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The process of recovering the ……signal from the modulated wave is known as demodulation.

Options :

1. audio and video

2. video

3. audio

4. noise

Question Number : 58 Question Id : 3419795699 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

When signal amplitude is equal to the carrier amplitude, the amplitude of carrier wave varies between

Options :

1. A and 2A

2. A and zero

3. 2A and zero

4. zero and one

Question Number : 59 Question Id : 3419795700 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The sum of carrier frequency and signal frequency is called

Options :

1. lower sideband frequency

2. upper sideband frequency

3. cut-off frequency

4. tuned frequency

Question Number : 60 Question Id : 3419795701 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

When modulating factor ‘m’=0.5, power carried by sidebands is

Options :

1. 50%

2. 11.1%

3. 33.3%

4. 44.5%

Question Number : 61 Question Id : 3419795702 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A binary number 110.001 represents…… decimal equivalent number.

Options :

1. 6.157

2. 6.152

3. 6.175

4. 6.125

Question Number : 62 Question Id : 3419795703 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A binary equivalent of 21.610 is

Options :

1. 10010.00111

2. 11001.11001

3. 10101.10011

4. 10011.10101

Question Number : 63 Question Id : 3419795704 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The …… gate has a 1 output when either or both inputs are 1.

Options :

1. OR

2. AND

3. NOT

4. XOR

Question Number : 64 Question Id : 3419795705 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A hexadecimal encoder uses…….. gate.

Options :

1. OR

2. NOR

3. NOT

4. NAND

Question Number : 65 Question Id : 3419795706 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A group of ……gate driving NAND gate is equivalent to a group of …… gate driving an OR gate.

Options :

1. AND, OR

2. OR, AND

3. NAND, AND

4. AND, NOR

Question Number : 66 Question Id : 3419795707 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

IC 7400 is

Options :

1. dual 4-input NAND gate

2. dual 2-input AND gate

3. quad 2-input NAND gate

4. quad 2-input AND gate

Question Number : 67 Question Id : 3419795708 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

When low power consumption is vital, ……is preferred.

Options :

1. TTL

2. Schottky TTL

3. ECL

4. CMOS

Question Number : 68 Question Id : 3419795709 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In positive logic, … stands for the more positive of the two voltage levels.

Options :

1. 0

2. 1

3. 00

4. 11

Question Number : 69 Question Id : 3419795710 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

……is also called a complementing circuit.

Options :

1. NAND

2. NOR̄

3. NOT

4. Negative logic

Question Number : 70 Question Id : 3419795711 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

According to De-Morgan's theorems, we can use a .....network in place of an AND-OR network.

Options :

1. AND-OR

2. AND-NOR

3. NAND-NOR

4. NAND-NAND

Question Number : 71 Question Id : 3419795712 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The .....method results in a Boolean equation where the inputs are first ANDed and then ORed.

Options :

1. POS

2. SOP

3. fundamental product

4. K-map

Question Number : 72 Question Id : 3419795713 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A ..... is also called a data selector.

Options :

1. multiplexer

2. demultiplexer

3. NAND-NAND network

4. NOR-NOR network

Question Number : 73 Question Id : 3419795714 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The half adder has

Options :

1. 2 inputs and 2 outputs

2. 2 inputs and 1 output

3. 1 input and 2 output

4. 1 input and 1 output

Question Number : 74 Question Id : 3419795715 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

By connecting half adders and full adders, we can make

Options :

1. a parallel binary adder

2. a serial binary adder

3. synchronous counter

4. a shift register

Question Number : 75 Question Id : 3419795716 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In a D-latch, the stored data may be changed while the CLK is

Options :

1. high

2. low

3. continuous

4. delayed

Question Number : 76 Question Id : 3419795717 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A counter has a natural count of

Options :

1. 2^n

2. n^2

3. 2^{n+1}

4. n^{2+m}

Question Number : 77 Question Id : 3419795718 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In D-flip-flop, a high PRESET forces output to equal……. a high CLEAR resets output to…

Options :

1. 1, 0

2. 0, 1

3. 1, 1

4. 0, 0

Question Number : 78 Question Id : 3419795719 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A three flip-flop counter has ……states.

Options :

1. 3

2. 6

3. 8

4. 9

Question Number : 79 Question Id : 3419795720 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Ripple counter means

Options :

1. parallel counter

2. mod counter

3. synchronous counter

4. asynchronous counter

Question Number : 80 Question Id : 3419795721 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A ring counter is a shift register with ……..feedback.

Options :

1. positive

2. negative

3. direct

4. inverse

Question Number : 81 Question Id : 3419795722 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A shift counter is a shift register with ……..feedback.

Options :

1. direct

2. inverse

3. positive

4. triggered

Question Number : 82 Question Id : 3419795723 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A RAM provides……. memory storage.

Options :

1. nonvolatile

2. volatile

3. programmable

4. virtual

Question Number : 83 Question Id : 3419795724 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

…./…address bits/memory cells are required for a 128-word by 4-bit ROM construction.

Options :

1. 8/128

2. 7/256

3. 7/512

4. 7/1024

Question Number : 84 Question Id : 3419795725 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The ……..MSI device is a ALU.

Options :

1. 7481

2. 7483

3. 7490

4. 74181

Question Number : 85 Question Id : 3419795726 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The largest binary number counted by n cascaded flip-flops has a decimal equivalent of

Options :

1. 2^n

2. 2^{n-1}

3. 2^n-1

4. 2^n+1

Question Number : 86 Question Id : 3419795727 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The notation……is used to represent Fourier transform.

Options :

1. $s(\omega) \leftrightarrow S(\omega)$

2. $s(\omega) \leftrightarrow S(t)$

3. $s(\omega) \leftrightarrow S(\omega)$

4. $s(t) \leftrightarrow S(\omega)$

Question Number : 87 Question Id : 3419795728 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The sampling frequency must be at least …….. the highest frequency in the modulating signal.

Options :

1. half

2. equal

3. twice

4. four times

Question Number : 88 Question Id : 3419795729 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Pulse code modulation is the process

Options :

1. by varying amplitude of pulses in proportion to the instantaneous value of the analog signal

2. by varying the width of pulses in proportion to the instantaneous value of the analog signal

3. by varying the position of pulses in proportion to the instantaneous value of the analog signal

4. of sampling in which the analog information signal is sampled with a continuous train of narrow rectangular pulses.

Question Number : 89 Question Id : 3419795730 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The A/D converter performs the function of

Options :

1. periodic sampling of analog input and converts into PAM signal

2. the quantizer and encoder

3. limits the frequency of input analog signal to desired frequency range

4. regenerating the digital pulses and enable to remove interference

Question Number : 90 Question Id : 3419795731 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

For obtaining the encoded signal with just 1-bit per sample is the essence of

Options :

1. PCM

2. PPM

3. differential modulation

4. differential PCM

Question Number : 91 Question Id : 3419795732 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Pulse step size is automatically adjusted with

Options :

1. differential modulation

2. adaptive differential modulation

3. delta-sigma modulation

4. PWM

Question Number : 92 Question Id : 3419795733 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

On-Off Keying is also referred as

Options :

1. BASK

2. FSK

3. BPSK

4. QPSK

Question Number : 93 Question Id : 3419795734 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The FSK signal is a superposition of two ASK signal with…….
carrier frequencies and ……..amplitudes.

Options :

1. different, same

2. same, different

3. same, zero

4. different, maximum

Question Number : 94 Question Id : 3419795735 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

QAM is a combination of

Options :

1. ASK and FSK

2. ASK and PSK

3. FSK and PSK

4. PCM and PWM

Question Number : 95 Question Id : 3419795736 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Two identical bit patterns have Hamming distance of

Options :

1. one

2. two

3. zero

4. infinite

Question Number : 96 Question Id : 3419795737 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

..... is carried out to determine whether there is an error or not in the received encoded data.

Options :

1. pulse coding

2. Hamming code

3. pulse modulation

4. differential modulation

Question Number : 97 Question Id : 3419795738 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If the data pattern is 100100 and CRC is 001, then the transmitted data sequence is

Options :

1. 100100001

2. 001100100

3. 001001001

4. 100100100

Question Number : 98 Question Id : 3419795739 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In NRZ line encoding format, the duty cycle is

Options :

1. =50%

2. < 50%

3. 100%

4. >100%

Question Number : 99 Question Id : 3419795740 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Manchester polar line code is also known as

Options :

1. uni-phase

2. bi-phase

3. zero phase

4. high phase

Question Number : 100 Question Id : 3419795741 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Cellular telephone uses……..technique.

Options :

1. CDMA

2. Hamming code

3. Walsh code

4. OFDMA