Question Paper Preview

Notations :

1.Options shown in green color and with ✔ icon are correct.

2.Options shown in red color and with ✖ icon are incorrect.

Question Paper Name :	M Sc Electronics 21st Sep 2021 Shift 1
Subject Name :	M.Sc. Electronics
Creation Date :	2021-09-21 12:58:47
Duration :	90
Total Marks :	100
Display Marks:	No
Calculator :	None
Magnifying Glass Required? :	No
Ruler Required? :	No
Eraser Required? :	No
Scratch Pad Required? :	No
Rough Sketch/Notepad Required? :	No
Protractor Required? :	No
Show Watermark on Console? :	Yes
Highlighter :	No
Auto Save on Console? (SA type of questions will be always auto saved) :	Yes

M.Sc. Electronics

Group Number :	1
Group Id :	96835546

Group Maximum Duration :	0
Group Minimum Duration :	90
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	100
Is this Group for Examiner? :	No

PART A

Section Id :	96835564
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	100
Number of Questions to be attempted :	100
Section Marks :	100
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	96835588
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 9683554851 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The minimized form of (A + AB + ABC + ABCD + ABCDE + ...) is

Options :

1. ✖ 1

2. ✔ A

3. ✖ A + AB

4. ✖ AB

Question Number : 2 Question Id : 9683554852 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

What is the output of x NAND x, if x =1?

Options :

1. ✔ 0

2. ✖ 1

3. ✖ x'

4. ✖ x

Question Number : 3 Question Id : 9683554853 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The minimum form of the Boolean expression [(X + Y +XY).(X + Z)] is

Options :

1. ✖ X + Y + Z

2. ✖ $XY + YZ$

3. ✔ $X + YZ$

4. ✖ $XZ + Y$

Question Number : 4 Question Id : 9683554854 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which of the following Boolean algebraic expressions is incorrect?

Options :

1. ✖ $A + \bar{A}B = A + B$

2. ✔ $A + AB = B$

3. ✖ $(A + B)(A + C) = A + BC$

4. ✖ $(A + \bar{B})(A + B) = A$

Question Number : 5 Question Id : 9683554855 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The reduced form of the expression A + A.B is

Options :

1. ✖ B

2. ✔ A

3. ✖ AB

4. ✖ A + B

Question Number : 6 Question Id : 9683554856 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Add the following 11011 + 01101

Options :

1. ✖ 011000

2. ✖ 101001

3. ✔ 101000

4. ✖ 001100

Question Number : 7 Question Id : 9683554857 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

If $(128)_{10} = (1003)_b$, the value of b is

Options :

1. ✖ 3

2. ✖ 4

3. ✔ 5

4. ✖ 6

Question Number : 8 Question Id : 9683554858 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Half adder circuit is constructed using

Options :

1. ✖ NAND gate and XOR gate

2. ✖ NOR gate and XOR gate

3. ✖ OR gate and XOR gate

4. ✔ AND gate and XOR gate

Question Number : 9 Question Id : 9683554859 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

A combinational logic circuit

Options :

1. ✖ Must contain flip flops

2. ✖ Must contain latches

3. ✔ Does not contain flip flops

4. ✖ Does not contain latches

Question Number : 10 Question Id : 9683554860 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

A Latch is an example of

Options :

1. ✖ Monostable multivibrator

2. ✖ Astable multivibrator

3. ✔ Bistable multivibrator

4. ✖ 555 Timer

Question Number : 11 Question Id : 9683554861 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The minimum number of flip flops required to design a mod-10 ripple counter is

Options :

1. ✖ 10

2. ✖ 9

3. ✔ 4

4. ✖ 8

Question Number : 12 Question Id : 9683554862 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

While converting a JK flip flop to D flip flop, if a buffer is connected between J and K inputs instead of an inverter, it results in a

Options :

1. ✖ JK flip itself

2. ✖ D flip flop

3. ✔ T flip flop

4. ✖ RS flip flop

Question Number : 13 Question Id : 9683554863 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

A cascade of three identical modulo - 5 counters has an overall modulus of

Options :

1. ✖ 5

2. ✖ 25

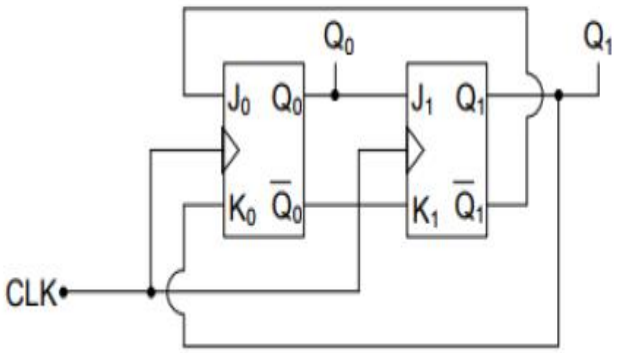
3. ✔ 125

4. ✖ 625

Question Number : 14 Question Id : 9683554864 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

In the following sequential circuit, the initial state (before the first clock pulse) of the circuit is $Q_1Q_0 = 00$. The state (Q_1Q_0), immediately after the 7^{th} clock pulse is



Options :

1. ✖ 00

2. ✔ 01

3. ✖ 10

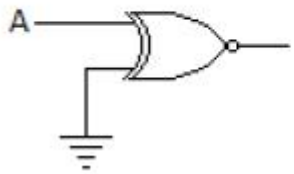
4. ✖ 11

Question Number : 15 Question Id : 9683554865 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

.For the gate in the given figure the output will be .....



Options :

1. ✖ 0

2. ✖ 1

3. ✖ A

4. ✔ $\bar{A}$

Question Number : 16 Question Id : 9683554866 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

A group of bits 11001 is serially shifted (right most bit is LSB) into a 5-bit parallel output register with an initial state 01110. After 3 clock pulses the register contains:

Options :

1. ✖ 01110

2. ✖ 11001

3. ✔ 00101

4. ✖

00111

Question Number : 17 Question Id : 9683554867 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

An 8-bit Serial-in/Parallel-out shift register is used with a clock frequency of 2 MHz. with the initial value of the register 0000 0000, the time required to send 8-input value to the output is

Options :

1. ✖ $8\ \mu - sec$

2. ✔ $4\ \mu - sec$

3. ✖ $16\ \mu - sec$

4. ✖ $18\ \mu - sec$

Question Number : 18 Question Id : 9683554868 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The most suitable gate for comparing two bits is

Options :

1. ✖ AND

2. ✖ OR

3. ✖ NAND

4. ✔ XOR

Question Number : 19 Question Id : 9683554869 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Data selectors are basically the same as

Options :

1. ✖ Decoders

2. ✖ Demultiplexers

3. ✔ Multiplexers

4. ✖ Encoders

Question Number : 20 Question Id : 9683554870 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which of the following exhibits even parity?

Options :

1. ✖ 10011000

2. ✔ 01110100

3. ✖ 11100011

4. ✖ 00110010

Question Number : 21 Question Id : 9683554871 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

A 4-bit ripple counter consists of flip flops that each have a propagation delay from clock to Q output of 12ns. For the counter to recycle from 1111 to 0000, it takes a total of

Options :

1. ✖ 12 ns

2. ✖ 24 ns

3. ✔ 48 ns

4. ✖ 36 ns

Question Number : 22 Question Id : 9683554872 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

A 10 MHz clock frequency is applied to a cascaded counter consisting of a modulus-5 counter,a modulus-8 counter, and two modulus-10 counters. The lowest frequency possible is

Options :

1. ✖ 10 KHz

2. ✔ 2.5 KHz

3. ✖ 5 KHz

4. ✖ 25 KHz

Question Number : 23 Question Id : 9683554873 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

.The terminal count of modulus-13 binary counter is

Options :

1. ✖ 0000

2. ✖ 1111

3. ✖ 1101

4. ✔ 1100

Question Number : 24 Question Id : 9683554874 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

When an 8-bit serial in/serial out shift register is used for 24 μ – secs time delay, the clock frequency must be

Options :

1. ✖ 41.67 KHz

2. ✔ 3333 KHz

3. ✖ 12 KHz

4. ✖ 8 MHz

Question Number : 25 Question Id : 9683554875 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

A memory with 256 address has

Options :

1. ✖ 256 address line

2. ✖ 6 address lines

3. ✖ 1 address line

4. ✔ 8 address lines

Question Number : 26 Question Id : 9683554876 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Optical storage devices employ

Options :

1. ✖ Ultraviolet light

2. ✖ Electromagnetic fields

3. ✖ Optical couplers

4. ✔ Lasers

Question Number : 27 Question Id : 9683554877 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The capacity relationship is given by

Options :

1. ✔ C = W log2 (1+S/N)

2. ✖ C = 2W log2 (1+S/N)

3. ✖ C= W log2 (1-S/N)

4. ✖ C= 4W log2 (1-S/N)

Question Number : 28 Question Id : 9683554878 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

.A “periodic function” is given by a function which

Options :

1. ✖ Has a period T = 2π

2. ✔ Satisfies f (t + T) = f (t)

3. ✖ Satisfies f (t + T) = − f (t)

4. ✖ Has a period T = π

Question Number : 29 Question Id : 9683554879 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Determine the Fourier transform of unit step x(t) = u(t)

Options :

1. ✔ 1/j ω

2. ✖ 1/2j ω

3. ✖ j ω

4. ✖ 2j ω

Question Number : 30 Question Id : 9683554880 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The sampling technique having the minimum noise interference is

Options :

1. ✖ Instantaneous sampling

2. ✔ Natural sampling

3. ✖ Flat top sampling

4. ✖ Differential sampling

Question Number : 31 Question Id : 9683554881 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

In pulse amplitude modulation,

Options :

1. ✔ Amplitude of the pulse train is varied

2. ✖ Width of the pulse train is varied

3. ✖ Frequency of the pulse train is varied

4. ✖ Phase of the pulse train is varied

Question Number : 32 Question Id : 9683554882 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

A 4- bit D/A converter is constructed using Resistive divider network, then the analog voltage for digital input of 1101 is (0V -'0' , 10V - '1')

Options :

1. ✖ 7(⅓) V

2. ✖ 13/16 V

3. ✔ 8.125 V

4. ✖ 13.125 V

Question Number : 33 Question Id : 9683554883 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

What is the major advantage of R-2R Ladder DAC over Resistive divider network?

Options :

1. ✖ It uses only 4 resistors

2. ✖ It uses the same number of inputs

3. ✖ It is easier to analyse

4. ✔ It uses only 2 resistors

Question Number : 34 Question Id : 9683554884 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

In which type of modulation, the carrier waves are in the form of pulses?

Options :

1. ✔ Pulse modulation

2. ✖ Continuous modulation

3. ✖ Angle modulation

4. ✖ Phase modulation

Question Number : 35 Question Id : 9683554885 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which of the following is a type of random error?

Options :

1. ✔ Sampling

2. ✖ Non-sampling

3. ✖ Probable

4. ✖ Average

Question Number : 36 Question Id : 9683554886 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

In Remote controlled cars, which type of modulation is used?

Options :

1. ✖ Pulse amplitude

2. ✔ Pulse position

3. ✖ Pulse width

4. ✖ Quadrature

Question Number : 37 Question Id : 9683554887 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The process of converting the analog sample into discrete form is

Options :

1. ✖ Modulation

2. ✖ Demodulation

3. ✔ Quantization

4. ✖ Sampling

Question Number : 38 Question Id : 9683554888 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which of the following is the sequence of operations in PCM?

Options :

1. ✖ Quantizing, Sampling, encoding

2. ✖ Sampling, encoding, quantizing,

3. ✖ Sampling, encoding, decoding

4. ✔ Sampling, quantizing, encoding

Question Number : 39 Question Id : 9683554889 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The digital modulation technique in which the step size is varied according to the variation in the slope of the input is called

Options :

1. ✖ Delta modulation

2. ✖ PCM

3. ✔ Adaptive delta modulation

4. ✖ PAM

Question Number : 40 Question Id : 9683554890 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Polar coding is a technique in which

Options :

1. ✔ 1 is transmitted by a positive pulse and 0 is transmitted by negative pulse

2. ✖ 1 is transmitted by a positive pulse and 0 is transmitted by zero volts

3. ✖ 1 is transmitted by a 5V and 0 is transmitted by zero volts

4. ✖ 1 is transmitted by a negative pulse and 0 is transmitted by positive pulse

Question Number : 41 Question Id : 9683554891 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The main function of a capacitor is to

Options :

1. ✔ Store energy

2. ✖ Dissipate heat

3. ✖ Help current flow

4. ✖ Block current flow

Question Number : 42 Question Id : 9683554892 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Kirchhoff's laws are true

Options :

1. ✖ Only if there is DC source in the circuit

2. ✖ Only if there is AC source in the circuit

3. ✔ Both for AC & DC sources

4. ✖ For active networks only

Question Number : 43 Question Id : 9683554893 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The peak value of an alternating voltage is 423 V. It's root mean square value is

Options :

1. ✔ 300 V

2. ✖ 423 V

3. ✖ 0 V

4. ✖ 523 V

Question Number : 44 Question Id : 9683554894 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Polar form of E=3+j4

Options :

1. ✔ 5 L53.13

2. ✖ 5 L43.13

3. ✖ 25 L53.13

4. ✖ 25 L43.13

Question Number : 45 Question Id : 9683554895 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

If the resistance in parallel with a parallel resonant circuit is reduced, the bandwidth

Options :

1. ✔ Decreases

2. ✖ Becomes sharper

3. ✖ Increases

4. ✖ Disappears

Question Number : 46 Question Id : 9683554896 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The resistance of 200 watt and 100 watt bulbs of the same voltage are respectively R1&R2. Then

Options :

1. ✖ $R_1=2R_2$

2. ✔ $R_2=2R_1$

3. ✖ $R_2=4R_1$

4. ✖ $R_1=4R_2$

Question Number : 47 Question Id : 9683554897 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Ideal current source have

Options :

1. ✖ Zero internal resistance

2. ✔ Infinite internal resistance

3. ✖ Low value of current

4. ✖ Large value of current

Question Number : 48 Question Id : 9683554898 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which of the following is the passive element?

Options :

1. ✔ Capacitor

2. ✖ Ideal current source

3. ✖ Ideal voltage source

4. ✖ Resistance

Question Number : 49 Question Id : 9683554899 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

For maximum transfer of power internal resistance of the source should be

Options :

1. ✔ Equal to load resistance

2. ✖ less than the load resistance

3. ✖ greater than the load resistance

4. ✖ infinity

Question Number : 50 Question Id : 9683554900 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

In Kirchhoff's first law $\Sigma i = 0$ at the junction is based on the conservation of

Options :

1. ✖ Force

2. ✖ Energy

3. ✔ Charge

4. ✖ Momentum

Question Number : 51 Question Id : 9683554901 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Two identical 2A, 4 Ω Norton equivalent circuits are connected in parallel with the like polarity. Combined Norton equivalent circuit will be

Options :

1. ✔ 4A, 2 Ω

2. ✖ 3A, 4 Ω

3. ✖ 2A, 4 Ω

4. ✖ 4A, 6 Ω

Question Number : 52 Question Id : 9683554902 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

In Norton's equivalent circuit, there is

Options :

1. ✔ Constant current source in parallel to resistance

2. ✖ Constant voltage source with a resistance

3. ✖ Constant current source with high resistance in series

4. ✖ Constant current sources and Voltage source

Question Number : 53 Question Id : 9683554903 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The input impedance of CRO is

Options :

1. ✖ Zero

2. ✖ Around 100Ω

3. ✖ Around 1 KΩ

4. ✔ Around 1 MΩ

Question Number : 54 Question Id : 9683554904 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The purpose of synchronizing control in CRO is to

Options :

1. ✖ Focus the spot on the screen

2. ✔ Look the display of the signal

3. ✖ Adjust the amplitude of the display

4. ✖ Control the intensity of the spot

Question Number : 55 Question Id : 9683554905 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

In an inductor filter current

Options :

1. ✔ Flows during whole of the Input Potential

2. ✖ Flows in short pulses

3. ✖ Does not flow during any part of the input potential

4. ✖ Depends on value of current

Question Number : 56 Question Id : 9683554906 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

An AC circuit consists of a resistor and a capacitor, to Increase the phase angle above 45^0
The following condition should be met.

Options :

1. ✖ $R=X_C$

2. ✖ $R>X_C$

3. ✔ $R<X_C$

4. ✖ $R=5X_C$

Question Number : 57 Question Id : 9683554907 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

When the Frequency is decreases, the impedance of a Parallel RL Circuit?

Options :

1. ✖ Increases

2. ✔ Decreases

3. ✖ Remains Constants

4. ✖ Doesn't depends on Frequency

Question Number : 58 Question Id : 9683554908 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Depletion region in junction diode contains

Options :

1. ✖ Free holes

2. ✖ Free electrons

3. ✔ Immobile charge carriers

4. ✖ Mobile charge carriers

Question Number : 59 Question Id : 9683554909 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The diode which permits remote tuning is

Options :

1. ✖ Zener diode

2. ✔ Varactor diode

3. ✖ Power diode

4. ✖ Tunnel diode

Question Number : 60 Question Id : 9683554910 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The Capacitance of a reverse biased PN Junction

Options :

1. ✖ Increases as reverse bias increases

2. ✖ Decrease as reverse bias Decrease

3. ✔ Increase as reverse bias Decrease

4. ✖ Doesn't change

Question Number : 61 Question Id : 9683554911 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Negative Resistant Characteristics exist for

Options :

1. ✖ Zener diode

2. ✔ Tunnel diode

3. ✖ Junction diode

4. ✖ Vactor diode

Question Number : 62 Question Id : 9683554912 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

If β =100 is the current gain of the transistor. Then **α** is

Options :

1. ✖ 1.01

2. ✖ 10

3. ✔ 0.99

4. ✖ 1000

Question Number : 63 Question Id : 9683554913 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which of the following is known as universal bias?

Options :

1. ✖ Fixed bias

2. ✔ Self bias

3. ✖ Forward bias

4. ✖ Reverse bias

Question Number : 64 Question Id : 9683554914 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The unit of h- parameter h_{oe} is

Options :

1. ✔ mho

2. ✖ ohm

3. ✖ No Unit

4. ✖ VA

Question Number : 65 Question Id : 9683554915 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

In a transistor the variations in operating point is due to

Options :

1. ✖ I_{CO}

2. ✖ V_{BE}

3. ✖ β

4. ✔ α

Question Number : 66 Question Id : 9683554916 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The input impedance of a JFET is _____that of an ordinary transistor.

Options :

1. ✖ Equal to

2. ✖ Less than

3. ✔ More than

4. ✖ Zero

Question Number : 67 Question Id : 9683554917 Question Type : MCQ Option Shuffling : Yes Is

Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

JFET is a _____ device

Options :

1. ✖ Bipolar

2. ✔ Unipolar

3. ✖ Multipolar

4. ✖ Electronic

Question Number : 68 Question Id : 9683554918 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

FET is a _____Control device

Options :

1. ✖ Current

2. ✔ Voltage

3. ✖ Power

4. ✖ Current & Voltage

Question Number : 69 Question Id : 9683554919 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

In UJT, The resistivity of _____Terminal is high

Options :

1. ✔ Base

2. ✖ Emitter

3. ✖ Collector

4. ✖ Gate

Question Number : 70 Question Id : 9683554920 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

UJT is generally used for

Options :

1. ✖ Square wave generation

2. ✔ Triangle wave generation

3. ✖ Sine wave generation

4. ✖ Saw tooth wave generation

Question Number : 71 Question Id : 9683554921 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

An SCR behaves as a_____switch

Options :

1. ✔ Uni-directional

2. ✖ Bi directional

3. ✖ Mechanical

4. ✖ Electrical

Question Number : 72 Question Id : 9683554922 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

An SCR turn off from conducting state to blocking state on

Options :

1. ✔ Reducing anode current below holding Current

2. ✖ Reverse gate Voltage

3. ✖ Reducing gate Current

4. ✖ Applying AC to the gate terminal

Question Number : 73 Question Id : 9683554923 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

What is the band gap of semiconductor used in solar cell?

Options :

1. ✖ 0.5eV

2. ✖ 1 eV

3. ✔ 1.5eV

4. ✖ 2eV

Question Number : 74 Question Id : 9683554924 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

An LED is made from

Options :

1. ✖ Germanium

2. ✖ Silicon

3. ✔ Gallium Arsenide

4. ✖ Phosphorescent Material

Question Number : 75 Question Id : 9683554925 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Current flowing through a Photo diode when there is no current is

Options :

1. ✖ Depletion current

2. ✖ Electron Current

3. ✔ Dark Current

4. ✖ Hole Current

Question Number : 76 Question Id : 9683554926 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Light dependent resistor is a _____type of device.

Options :

1. ✖ Photo Voltaic

2. ✖ Photo Emissive

3. ✖ Photo Active

4. ✔ Photo Resistive

Question Number : 77 Question Id : 9683554927 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

A Zener diode has _____ break down voltage

Options :

1. ✖ Undefined

2. ✔ Sharp

3. ✖ Zero

4. ✖ Linear

Question Number : 78 Question Id : 9683554928 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The output voltage of a step down type Switching Voltage Regulator depends on

Options :

1. ✖ Input Voltage

2. ✔ Duty Cycle

3. ✖ Transfer on time

4. ✖ Independent of Input Voltage

Question Number : 79 Question Id : 9683554929 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

In An inverting type switching regulator, Output voltage is _____ input voltage

Options :

1. ✖ Lesser than

2. ✖ Greater than

3. ✔ Opposite to

4. ✖ Equal to

Question Number : 80 Question Id : 9683554930 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which Stage of DC Power supply uses a Zener Diode as the main component?

Options :

1. ✖ Rectifier

2. ✖ Voltage Divider

3. ✔ Regulator

4. ✖ Filter

Question Number : 81 Question Id : 9683554931 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

In a 15V Zener diode, the break down will occur due to

Options :

1. ✔ Avalanche Mechanism

2. ✖ Zener Mechanism

3. ✖ Diffusion

4. ✖ Rectifier

Question Number : 82 Question Id : 9683554932 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The gain of a cascaded amplifier is equal to the

Options :

1. ✔ Product of Individual Gains

2. ✖ Some of Individual gains

3. ✖ Ratio of Gains

4. ✖ Difference of Individual gains

Question Number : 83 Question Id : 9683554933 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The bandwidth of a single stage amplifier is _____ that of the multistage amplifier.

Options :

1. ✔ More Than

2. ✖ Same As

3. ✖ Less Than

4. ✖ Can't predict

Question Number : 84 Question Id : 9683554934 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Purpose of RC or Transformer Coupling is to

Options :

1. ✖ Block AC

2. ✔ Separate Bias of One stage from another

3. ✖ Increase thermals stability

4. ✖ Block DC

Question Number : 85 Question Id : 9683554935 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The gain of an amplifier due to feedback is known as _____ gain

Options :

1. ✖ Resonant

2. ✖ Open loop

3. ✔ Closed Loop

4. ✖ Resonance

Question Number : 86 Question Id : 9683554936 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The value of negative feedback fraction is always

Options :

1. ✔ Less than one

2. ✖ More than one

3. ✖ Equal to one

4. ✖ Zero

Question Number : 87 Question Id : 9683554937 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

If a feedback fraction of an amplifier is 0.01, than voltage gain with negative feedback is approximately

Options :

1. ✖ 500

2. ✔ 100

3. ✖ 1000

4. ✖ 5000

Question Number : 88 Question Id : 9683554938 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The input stage of on Op-amp is usually a

Options :

1. ✔ Differentially Amplifier

2. ✖ Class B Push pull Amplifier

3. ✖ CE Amplifier

4. ✖ Swamped Amplifier

Question Number : 89 Question Id : 9683554939 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

A certain Non-Inventing Amplifier has R_i of 1KΩ and R_F of 100 KΩ The closed loop gain is

Options :

1. ✖ 1, 00,000

2. ✖ 1000

3. ✔ 101

4. ✖ 100

Question Number : 90 Question Id : 9683554940 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

If A_D =3500 and A_C=0.35 The CMRR is

Options :

1. ✖ 1225

2. ✖ 100

3. ✖ 80

4. ✔ 10

Question Number : 91 Question Id : 9683554941 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

When a differential amplifier is operated in single-ended mode?

Options :

1. ✖ The output is grounded

2. ✔ One input is grounded and signal is applied to other

3. ✖ Both inputs are connected

4. ✖ Output is not inverted

Question Number : 92 Question Id : 9683554942 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

A Summing Amplifier can have

Options :

1. ✖ Only one input

2. ✖ Three Inputs

3. ✔ Any number of Inputs

4. ✖ Two Inputs

Question Number : 93 Question Id : 9683554943 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

In Wein-bridge oscillators the feedback used is

Options :

1. ✔ Positive Feedback

2. ✖ Negative Feedback

3. ✖ LC Tank Circuit

4. ✖ RL Circuit

Question Number : 94 Question Id : 9683554944 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The Lower and Upper thresholds voltages of IC 555 are

Options :

1. ✔ $V_{CC}/3, 2V_{CC}/3$

2. ✖ $2V_{CC}/3, V_{CC}/3$

3. ✖ $V_{CC}/2, V_{CC}/3$

4. ✖ $2V_{CC}, V_{CC}/3$

Question Number : 95 Question Id : 9683554945 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

The output voltage of IC 7815 is

Options :

1. ✖ 10

2. ✖ 15

3. ✖ -10

4. ✔

Question Number : 96 Question Id : 9683554946 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

An Astable multivibrator is also known as

Options :

1. ✖ Schmitt Trigger

2. ✔ Free running multivibrator

3. ✖ Regenerator

4. ✖ Integrator

Question Number : 97 Question Id : 9683554947 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Modulation is done at

Options :

1. ✔ Transmitter

2. ✖ Receiver

3. ✖ Modem

4. ✖ In the channel

Question Number : 98 Question Id : 9683554948 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Super heterodyne principle refers to

Options :

1. ✖ Using a large number of amplifier stages

2. ✖ Using a Push-Pull Circuit

3. ✔ Obtaining lower fixed intermediaries

4. ✖ Using a Regulated Circuit

Question Number : 99 Question Id : 9683554949 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

In a Radio receiver, noise is generally developed at

Options :

1. ✖ IF Stage

2. ✖ Receiving Stage

3. ✖ Audio Stage

4. ✔ RF Stage

Question Number : 100 Question Id : 9683554950 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

In AM Wave the majority of the power is in

Options :

1. ✖ Lower side bands

2. ✖ Upper side bands

3. ✔ Carrier

4. ✖ Audio frequency