

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 $(A + AB + ABC + ABCD + ABCDE + \dots)$ 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

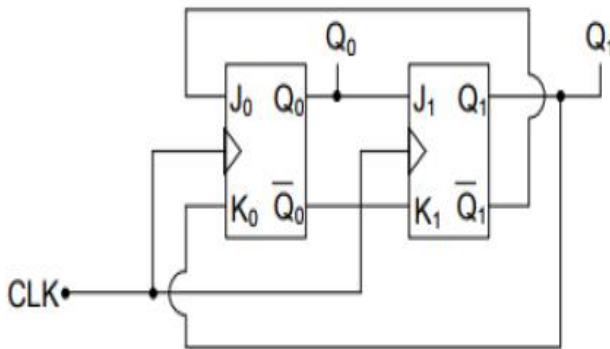
3. ✔ 125

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 7th clock pulse is



Options :

1. ✘ 00

2. ✔ 01

3. ✘ 10

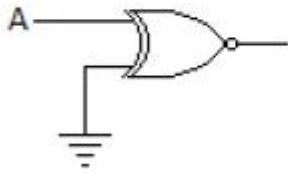
4. ✘ 11

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 24μ – 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. ✔ $C = W \log_2 (1+S/N)$
2. ✘ $C = 2W \log_2 (1+S/N)$
3. ✘ $C = W \log_2 (1-S/N)$
4. ✘ $C = 4W \log_2 (1-S/N)$

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 $T = 2\pi$
2. ✔ Satisfies $f(t + T) = f(t)$
3. ✘ Satisfies $f(t + T) = -f(t)$
4. ✘ Has a period $T = \pi$

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. ✔ $1/j\omega$
2. ✘ $1/2j\omega$
3. ✘ $j\omega$
4. ✘ $2j\omega$

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. ✘ $7\left(\frac{1}{3}\right)$ 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

3. ✗

4. ✗ Phase modulation

4. ✗

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

4. ✗

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 R_1 & R_2 . 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 $\sum i = 0$ 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 $1\text{ K}\Omega$
4. ✓ Around $1\text{ M}\Omega$

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°

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 decreases, the impedance of a parallel RL circuit?

Options :

1. ✘ Increases

2. ✔ Decreases

3. ✘ Remains constant

4. ✘ Doesn't depend 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 $\beta = 100$ 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, then 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 an 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-Inverting Amplifier has R_i of $1\text{K}\Omega$ and R_F of $100\text{K}\Omega$ 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