SDSC (ISRO)

Previous Year Paper

Technician B Electronic Mechanic

4 June 2022

भारत सरकार :: अंतरिक्ष विभाग
Government of India :: Dept. of Space

सतीश धवन अंतरिक्ष केंद्र शार, श्रीहरिकोटा

भारतीय अंतरिक्ष अनुसंधान संगठन
Indian Space Research Organisation

SATISH DHAWAN SPACE CENTRE SHAR
Sriharikota

Participant ID	
Participant Name	
Test Center Name	
Test Date	04/06/2022
Test Time	4:30 PM - 6:30 PM
Subject	Electronic Mechanic(For SDSC SHAR and ISTRAC)

Section : **Electronic Mechanic For SDSC SHAR and ISTRAC**

Q.1 In electronics/electrical circuit the angle between voltage and current is called

A. Peak factor
B. Form factor
C. Phase difference
D. Power factor

Ans
✗ A. A
✗ B. B
✓ C. C
✗ D. D

Question ID : **5834937644**
Status : **Answered**
Chosen Option : **D**

Q.2 Convert the decimal number 292.75 to binary?

A. 100100100.11
B. 100010100.01
C. 100100100.10
D. 100011001.11

Ans
✓ A. A
✗ B. B
✗ C. C
✗ D. D

Question ID : **5834937601**
Status : **Answered**
Chosen Option : **A**

Q.3 Which of the following audio speaker will be hard to be driven by a power amplifier?

A. 4 Ohms
B. 8 Ohms
C. 12 Ohms
D. 2 Ohms

Ans
✗ A. A
✗ B. B
✗ C. C
✓ D. D

Question ID : **5834937628**
Status : **Answered**
Chosen Option : **C**

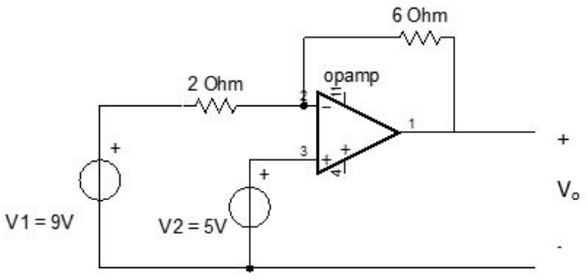
Q.4 The resolution of a 3½ digit, digital voltmeter assuming that the reference voltage is 2V is

A. 0.5mV
B. 2mV
C. 6mV
D. 1mV

Ans
✗ A. A
✗ B. B
✗ C. C
✓ D. D

Question ID : **5834937637**
Status : **Answered**
Chosen Option : **A**

Q.5 V_o in the following circuit is



A. 4V
B. 17V
C. 27V
D. 12 V

Ans ✗ A. A
✓ B. B
✗ C. C
✗ D. D

Question ID : **5834937618**
Status : **Answered**
Chosen Option : **A**

Q.6 The purpose of cold junction compensation for a thermocouple is

A. To decrease the Temperature Sensitivity
B. To increase voltage output
C. To cancel unwanted voltage at the output of a Thermocouple
D. Used for high temperature circuits

Ans ✗ A. A
✓ B. B
✗ C. C
✗ D. D

Question ID : **5834937638**
Status : **Answered**
Chosen Option : **C**

Q.7 IP address size in IPV6 version is

A. 216 bits
B. 512 bits
C. 32 bits
D. 128bits

Ans
✗ A. A
✗ B. B
✗ C. C
✓ D. D

Question ID : **5834937629**
Status : **Answered**
Chosen Option : **B**

Q.8 The SiO_2 layer in IC acts as

A. a resistor
B. an insulator
C. an isolator
D. channel

Ans
✗ A. A
✓ B. B
✗ C. C
✗ D. D

Question ID : **5834937591**
Status : **Answered**
Chosen Option : **C**

Q.9 A wire of resistance 3 Ω is cut into three equal pieces, which are then joined to form a triangle. The equivalent resistance between any two corners of the triangle is

A. 2/3 Ω
B. 3/2 Ω
C. ½ Ω
D. 1/3 Ω

Ans
✔ A. A
✘ B. B
✘ C. C
✘ D. D

Question ID : **5834937661**
Status : **Answered**
Chosen Option : **D**

Q.10 In voltage regulation Zener diode is used in

A. Forward bias
B. Reverse bias
C. Cannot use Zener diode
D. Forward bias with proper breakdown voltage

Ans
✘ A. A
✔ B. B
✘ C. C
✘ D. D

Question ID : **5834937585**
Status : **Answered**
Chosen Option : **B**

Q.11 Gain of an antenna is defined as the product of

A. Antenna efficiency and directivity of the antenna
B. Radiation intensity in that direction and the total input radiated power
C. Radiation intensity in that direction and the average radiated power
D. None of the above

Ans
✔ A. A
✘ B. B
✘ C. C
✘ D. D

Question ID : **5834937625**
Status : **Answered**
Chosen Option : **C**

Q.12 After firing an SCR, the gating pulse is removed, then the current in the SCR will

A. Remains the same
B. Immediately fall to zero
C. Increase high
D. Increase a little and fall to zero

Ans
✔ A. A
✘ B. B
✘ C. C
✘ D. D

Question ID : **5834937647**
Status : **Answered**
Chosen Option : **C**

Q.13 In a servo-controlled voltage stabilizer, what is the main method of operation?

A. Open loop method
B. Modulation method
C. Closed loop method
D. Voltage divider method

Ans
✘ A. A
✘ B. B
✔ C. C
✘ D. D

Question ID : **5834937645**
Status : **Answered**
Chosen Option : **D**

Q.14 Two conducting wires A (Resistance R_A) and B (Resistance R_B) are made of same material and have same length. If the diameter of the wire B is twice that of wire A, the ratio of R_A/R_B is?

A. 4
B. 1/4
C. 1/2
D. 1

Ans
✔ A. A
✘ B. B
✘ C. C
✘ D. D

Question ID : **5834937594**
Status : **Answered**
Chosen Option : **C**

Q.15 The advantage of totem pole configuration is

A. Fast and low power consumption
B. Slow and high power consumption
C. Fast and high power consumption
D. None of the above

Ans
✔ A. A
✘ B. B
✘ C. C
✘ D. D

Question ID : **5834937588**
Status : **Answered**
Chosen Option : **A**

Q.16 The phenomenon which causes the reverse breakdown in Zener Diode is called as

A. Hall Effect
B. Avalanche Effect
C. Breakdown Effect
D. Seebeck Effect

Ans
✗ A. A
✓ B. B
✗ C. C
✗ D. D

Question ID : **5834937586**
Status : **Answered**
Chosen Option : **B**

Q.17 The length of a tangent drawn from an external point, which is 10cm away from centre of circle is 8 cm. The radius of the circle is?

A. 4 cm
B. 5 cm
C. 6 cm
D. 7 cm

Ans
✗ A. A
✗ B. B
✓ C. C
✗ D. D

Question ID : **5834937656**
Status : **Answered**
Chosen Option : **B**

Q.18 In npn transistor, the majority carrier in the base region is

A. Electrons
B. Holes
C. Atoms
D. All

Ans
✗ A. A
✓ B. B
✗ C. C
✗ D. D

Question ID : **5834937583**
Status : **Answered**
Chosen Option : **A**

Q.19 In the frequency response curve of an RC coupled amplifier, drop in the gain value at lower frequencies observed is due to

A. Output resistance of the input transistor
B. Input resistance of the output transistor
C. Reactance of coupling capacitor
D. All of the above

Ans
✗ A. A
✗ B. B
✗ C. C
✓ D. D

Question ID : **5834937650**
Status : **Answered**
Chosen Option : **D**

Q.20 For a body moving with a constant speed in horizontal circle. Which of the following remain constant?

A. Velocity
B. Acceleration
C. Centripetal force
D. Kinetic energy

Ans
✗ A. A
✗ B. B
✗ C. C
✓ D. D

Question ID : **5834937660**
Status : **Answered**
Chosen Option : **C**

Q.21 A MOSFET in depletion mode acts as

A. JFET

B. a current Source

C. a resistor

D. a BJT

Ans
✔ A. A
✘ B. B
✘ C. C
✘ D. D

Question ID : **5834937587**
Status : **Answered**
Chosen Option : **B**

Q.22 In Boolean logic if XY=0 then X ⊖ Y is equal to

A. $X + Y$

B. XY

C. $\bar{X}\,\bar{Y}$

D. $\bar{X} + \bar{Y}$

Ans
✔ A. A
✘ B. B
✘ C. C
✘ D. D

Question ID : **5834937603**
Status : **Answered**
Chosen Option : **D**

Q.23 Which of the following method requires constant transmitter power for the signal transmission?

A. Pulse Code Modulation
B. Pulse Position Modulation
C. Pulse Width Modulation
D. Pulse Amplitude Modulation

Ans
✗ A. A
✓ B. B
✗ C. C
✗ D. D

Question ID : **5834937633**
Status : **Answered**
Chosen Option : **D**

Q.24 For a Non-inverting amplifier consisting of OPAMP, if A_{OL} and A_{CL} are Open loop and closed loop gains respectively, then

A. $A_{OL} < A_{CL}$
B. $A_{OL} = A_{CL}$
C. $A_{OL} > A_{CL}$
D. $A_{OL} < 1, A_{CL} < 1$

Ans
✗ A. A
✗ B. B
✓ C. C
✗ D. D

Question ID : **5834937616**
Status : **Answered**
Chosen Option : **B**

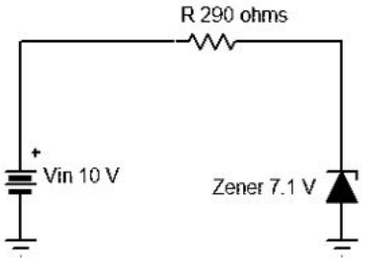
Q.25 What is the total impedance of RLC circuit, with resistance of 8 Ω, capacitive reactance of 2 Ω and inductive reactance of 8 Ω connected in series across 230 V, 50 Hz supply?

A. 12
B. 18
C. 14
D. 10

Ans
✗ A. A
✗ B. B
✗ C. C
✓ D. D

Question ID : **5834937614**
Status : **Answered**
Chosen Option : **A**

Q.26 What is the current through the resistor in the circuit?

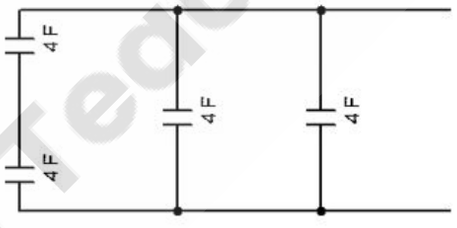


A. 29 mA
B. 2.9 mA
C. 10 mA
D. 12 mA

Ans
✗ A. A
✗ B. B
✓ C. C
✗ D. D

Question ID : **5834937589**
Status : **Answered**
Chosen Option : **A**

Q.27 What is the total capacitance in the given circuit?



A. 8 F
B. 10 F
C. 12 F
D. 16 F

Ans
✗ A. A
✓ B. B
✗ C. C
✗ D. D

Question ID : **5834937608**
Status : **Answered**
Chosen Option : **B**

Q.28 A series resonant circuit has L=1 mH and C =10 F. The required R for the bandwidth of 14 Hz is?

A. 88 mΩ
B. 0.14 Ω
C. 159 mΩ
D. 1.4 Ω

Ans ✔ A. A
✘ B. B
✘ C. C
✘ D. D

Question ID : **5834937622**
Status : **Answered**
Chosen Option : **B**

Q.29 The output of a logic gate is 1 when all its inputs are at logic 1. The gate is either

A. NAND or NOR
B. AND or OR
C. OR or XOR
D. AND or NOR

Ans ✘ A. A
✔ B. B
✘ C. C
✘ D. D

Question ID : **5834937600**
Status : **Answered**
Chosen Option : **B**

Q.30 The resistance value of PT100 sensor varies --------ohms/°C

A. 0.184

B. 0.284

C. 0.384

D. 0.484

Ans ✗ A. A

✗ B. B

✓ C. C

✗ D. D

Question ID : **5834937636**
Status : **Answered**
Chosen Option : **C**

Q.31 A 5V dc source is connected to a series combination of 100 Ω resistor and 0.2 μF capacitor. What is the current through the circuit under steady state?

A. 0.05 A

B. 0.1 A

C. 0.0 A

D. 0.5 A

Ans ✗ A. A

✗ B. B

✓ C. C

✗ D. D

Question ID : **5834937596**
Status : **Answered**
Chosen Option : **A**

Q.32 Peak inverse voltage of a center tapped full wave rectifier is

A. Vm
B. 2 Vm
C. Vm / π
D. 2 Vm / π

Ans ✗ A. A
✓ B. B
✗ C. C
✗ D. D

Question ID : **5834937643**
Status : **Answered**
Chosen Option : **B**

Q.33 When we actuate a switch an output lamp will be ON, and when we de-actuate the same switch the output Lamp still glows ON. What kind of circuit it is?

A. Open Circuit
B. Inching Circuit
C. Latching Circuit
D. Interlocking Circuit

Ans ✗ A. A
✗ B. B
✓ C. C
✗ D. D

Question ID : **5834937635**
Status : **Answered**
Chosen Option : **D**

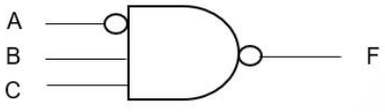
Q.34 Which of the following is not a type of Strain Gauge?

A. Wire
B. Foil
C. Frame
D. Coil

Ans
✗ A. A
✗ B. B
✗ C. C
✓ D. D

Question ID : **5834937640**
Status : **Answered**
Chosen Option : **C**

Q.35 What is the input of the below given gates in the form of ABC, if the output F=0?



A. 001
B. 110
C. 011
D. 100

Ans
✗ A. A
✗ B. B
✓ C. C
✗ D. D

Question ID : **5834937606**
Status : **Answered**
Chosen Option : **C**

Q.36 Which of the following is not a basic reason for modulation of signal?

A. Practical length of antenna
B. Operating range
C. Wireless communication
D. Encode an information

Ans
✗ A. A
✗ B. B
✗ C. C
✓ D. D

Question ID : **5834937627**
Status : **Answered**
Chosen Option : **A**

Q.37 In an inverter, if the fundamental output frequency is 50Hz, then the frequency of the lowest order harmonic will be

A. 50 Hz
B. 150Hz
C. 250Hz
D. 350Hz

Ans
✗ A. A
✓ B. B
✗ C. C
✗ D. D

Question ID : **5834937652**
Status : **Answered**
Chosen Option : **A**

Q.38 For a 256B ROM which is represented as 512 X 4 bits. The size of address and data lines respectively are

A. 512 and 4 bits
B. 9 and 4 bits
C. 9 and 2 bits
D. 512 and 2 bits

Ans
✗ A. A
✓ B. B
✗ C. C
✗ D. D

Question ID : **5834937604**
Status : **Answered**
Chosen Option : **D**

Q.39 In Common Base configuration of transistor $\alpha = 0.9$ and $I_E = 1mA$, find I_B

A. 1 A
B. 10 mA
C. 5 mA
D. 0.1 mA

Ans
✗ A. A
✗ B. B
✗ C. C
✓ D. D

Question ID : **5834937621**
Status : **Answered**
Chosen Option : **D**

Q.40 The sum of three numbers is 264. If first number is twice the second and third number is one-third of the first, then the second number is

A. 48
B. 54
C. 72
D. 84

Ans
✗ A. A
✗ B. B
✓ C. C
✗ D. D

Question ID : **5834937654**
Status : **Answered**
Chosen Option : **B**

Q.41 In full adder, there are

A. Two binary inputs and two outputs

B. Three binary inputs and two binary outputs

C. Three binary inputs and three binary outputs

D. Two binary inputs and three Binary outputs

Ans ✗ A. A

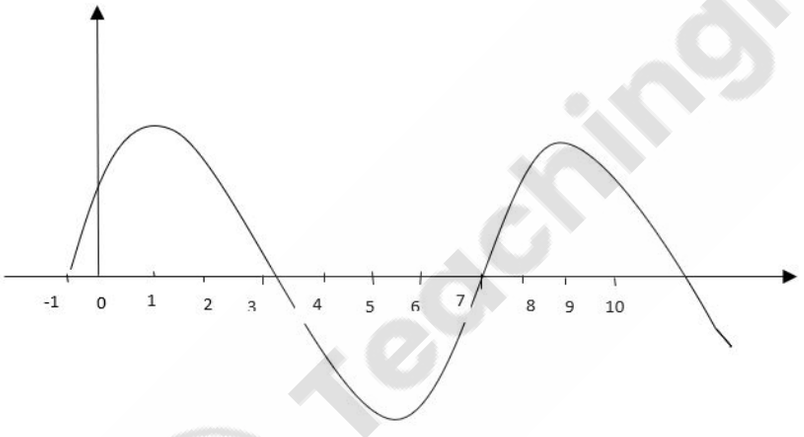
✓ B. B

✗ C. C

✗ D. D

Question ID : **5834937602**
Status : **Answered**
Chosen Option : **A**

Q.42 What is the period and frequency of the waveform shown below?



A. T = 10sec and F= 0.100Hz

B. T = 5sec and F= 0.200Hz

C. T = 7sec and F= 0.100Hz

D. T = 8sec and F= 0.125Hz

Ans ✗ A. A

✗ B. B

✗ C. C

✓ D. D

Question ID : **5834937623**
Status : **Answered**
Chosen Option : **C**

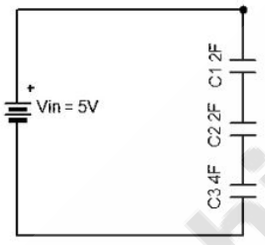
Q.43 Which splicing technique involves the alignment and locking of broken fiber edges by means of positioning devices and optical cement?

A. Fusion
B. Mechanical
C. Both A and B
D. None of the above

Ans ✗ A. A
✓ B. B
✗ C. C
✗ D. D

Question ID : **5834937631**
Status : **Answered**
Chosen Option : **A**

Q.44 What is the voltage across C1, C2 and C3 respectively in the given circuit if they are fully charged?



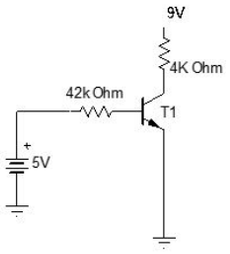
A. 2 V, 2 V,1 V
B. 1.5 V, 1.5 V, 2 V
C. 1 V, 1 V, 3 V
D. 3 V, 1 V, 1 V

Ans ✓ A. A
✗ B. B
✗ C. C
✗ D. D

Question ID : **5834937595**
Status : **Answered**
Chosen Option : **A**

Q.45 What is the state of following transistor in the circuit? h_{FE} (β) = 100,

V_{BE} = 0.8 V, $V_{CE\ sat}$ = 0.2V



A. Active region
B. Saturated region
C. Cutoff region
D. Cannot be determined

Ans
✗ A. A
✓ B. B
✗ C. C
✗ D. D

Question ID : **5834937593**
Status : **Answered**
Chosen Option : **B**

Q.46 Which of the following oscillator cannot be used in low frequency applications

A. Wein Bridge oscillators
B. RC phase shift oscillators
C. Colpitts oscillators
D. Blocking oscillators

Ans
✗ A. A
✗ B. B
✓ C. C
✗ D. D

Question ID : **5834937617**
Status : **Answered**
Chosen Option : **D**

Q.47 The Peak inverse voltage of each diode in bridge rectifier circuit is ____ that of the equivalent center tapped full wave rectifier circuit.

A. Half
B. The same
C. Twice
D. Four times

Ans
✔ A. A
✘ B. B
✘ C. C
✘ D. D

Question ID : **5834937641**
Status : **Answered**
Chosen Option : **A**

Q.48 What is device show below?

A. N-MOS
B. P-MOS
C. CMOS
D. JFET

Ans
✘ A. A
✔ B. B
✘ C. C
✘ D. D

Question ID : **5834937592**
Status : **Answered**
Chosen Option : **B**

Q.49 The maximum rate of change of output voltage caused by a step input voltage of an OPAMP is called

A. Slew rate
B. Nyquist rate
C. Distortion rate
D. Rising rate

Ans
✔ A. A
✘ B. B
✘ C. C
✘ D. D

Question ID : **5834937612**
Status : **Answered**
Chosen Option : **A**

Q.50 Maximum component density for a given PCB size can be obtained by

A. SMD components and multi-layer PCB
B. Leaded components and single sided PCB
C. Leaded components and double-sided PCB
D. SMD components and double-sided PCB

Ans
✔ A. A
✘ B. B
✘ C. C
✘ D. D

Question ID : **5834937609**
Status : **Answered**
Chosen Option : **D**

Q.51 Logic equation of an EX-NOR gate having its inputs as A and B is?

A. A'B+AB'
B. A'B'+A'B
C. A'B'+AB
D. A'B'+AB'

Ans
✘ A. A
✘ B. B
✔ C. C
✘ D. D

Question ID : **5834937630**
Status : **Answered**
Chosen Option : **D**

Q.52 A transistor has a β_{dc} of 120 and base current of 10 μA. what is the collector current?

A. 1.2 mA
B. 120 μA
C. 12 mA
D. 120 mA

Ans ✔ A. A
✗ B. B
✗ C. C
✗ D. D

Question ID : **5834937615**
Status : **Answered**
Chosen Option : **D**

Q.53 Pulsating DC applied to power amplifier causes

A. Burning of transistor
B. Hum in the circuit
C. Excessive forward voltage
D. Nothing happens

Ans ✗ A. A
✔ B. B
✗ C. C
✗ D. D

Question ID : **5834937649**
Status : **Answered**
Chosen Option : **B**

Q.54 Which of the following is correct for a D-type flip flop?

A. The output toggles if one of the inputs is held '1'
B. Only one of the inputs can be '1' at a time
C. The output complement follows the input when enabled
D. The Q output is either 'Set' or 'Reset' as soon as the D input goes'1' or '0'

Ans ✗ A. A
✗ B. B
✗ C. C
✔ D. D

Question ID : **5834937607**
Status : **Answered**
Chosen Option : **D**

Q.55 Find the square root of (272^2-128^2)

A. 144
B. 200
C. 240
D. 256

Ans
✗ A. A
✗ B. B
✓ C. C
✗ D. D

Question ID : **5834937655**
Status : **Answered**
Chosen Option : **D**

Q.56 The advantage of FDMA over TDMA includes

1. Division is simpler
2. Propagation delays are eliminated
3. Cheaper filters with less complicated logic functions
4. Linearity

A. 1,2 and 3 correct
B. 1 and 2 are correct
C. 1 and 4 correct
D. All four are correct

Ans
✗ A. A
✓ B. B
✗ C. C
✗ D. D

Question ID : **5834937632**
Status : **Answered**
Chosen Option : **D**

Q.57 Which gauge is used for measurement of Vacuum pressure?

A. McLeod gauge
B. Bellows gauge
C. Both A & B
D. None of the above

Ans
✔ A. A
✘ B. B
✘ C. C
✘ D. D

Question ID : **5834937642**
Status : **Answered**
Chosen Option : **C**

Q.58 What is the logic levels 0 and 1 respectively for RS232 serial communication standard?

A. +5 to +15V and -5 to -15V
B. +2 to +6V and -2 to -6V
C. +3 to +12V and -3 to -12V
D. +2 to +16V and -2 to -16V

Ans
✔ A. A
✘ B. B
✘ C. C
✘ D. D

Question ID : **5834937626**
Status : **Answered**
Chosen Option : **D**

Q.59 If $\sqrt{2}\,Sin(60-\alpha)=1$ then α is

A. 45°
B. 15°
C. 60°
D. 30°

Ans
✘ A. A
✔ B. B
✘ C. C
✘ D. D

Question ID : **5834937653**
Status : **Answered**
Chosen Option : **A**

Q.60 A 1000 J work is done in 2 seconds. What is the power utilized?

A. 998 W
B. 1002 W
C. 2000 W
D. 500 W

Ans
✗ A. A
✗ B. B
✗ C. C
✓ D. D

Question ID : **5834937658**
Status : **Answered**
Chosen Option : **A**

Q.61 A body of mass 10 kg is travelling with uniform speed of 5 m/s. Its kinetic energy is

A. 25 J
B. 125 J
C. 1250 J
D. 1000 J

Ans
✗ A. A
✓ B. B
✗ C. C
✗ D. D

Question ID : **5834937659**
Status : **Answered**
Chosen Option : **B**

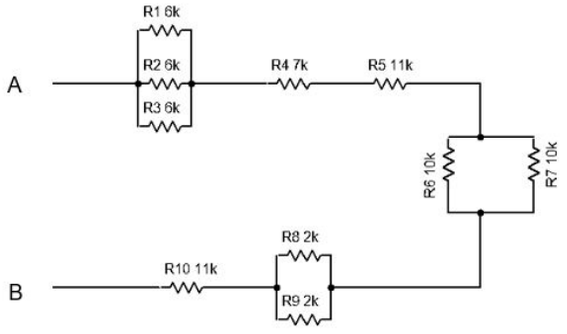
Q.62 A decade counter is a combination of

A. Four shift registers
B. Four flip flops
C. Four flip flops and combinational circuit
D. Three flipflops.

Ans
✗ A. A
✗ B. B
✓ C. C
✗ D. D

Question ID : **5834937605**
Status : **Answered**
Chosen Option : **C**

Q.63 Find the resistance between the points A and B in the circuit given below? The resistance values given the circuit are kilo Ohms (i.e. 2k means 2 kΩ).



A. 35 kΩ
B. 38 kΩ
C. 47 kΩ
D. 37 kΩ

Ans
✗ A. A
✗ B. B
✗ C. C
✓ D. D

Question ID : **5834937611**
Status : **Answered**
Chosen Option : **D**

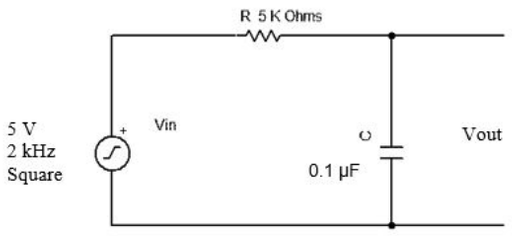
Q.64 Which one of the following is not an essential component in a Clamper Circuit?

A. Diode
B. Capacitor
C. Resistor
D. Independent DC Supply

Ans
✗ A. A
✗ B. B
✗ C. C
✓ D. D

Question ID : **5834937610**
Status : **Answered**
Chosen Option : **B**

Q.65 A 1 kHz square wave is applied to the circuit below. The output waveform will look like



A. Sine
B. Triangular
C. Sawtooth
D. Square

Ans ✗ A. A
✓ B. B
✗ C. C
✗ D. D

Question ID : **5834937620**
Status : **Answered**
Chosen Option : **A**

Q.66 The quality factor 'Q' of an inductance coil is improved by?

A. Reducing coil resistance to minimum
B. Reducing coil inductance
C. Increasing the coil resistance to the maximum
D. Both (A) and (B)

Ans ✓ A. A
✗ B. B
✗ C. C
✗ D. D

Question ID : **5834937648**
Status : **Answered**
Chosen Option : **D**

Q.67 A sphere and a cube have equal surface areas. The ratio of the volume of the sphere to that of cube is

A. √π: √6
B. √6: √π
C. √π: √3
D. √3: √π

Ans ✗ A. A
✓ B. B
✗ C. C
✗ D. D

Question ID : **5834937657**
Status : **Answered**
Chosen Option : **A**

Q.68 Which of transistor configurations has high voltage gain and high current gain?

A. CC
B. CB
C. CE
D. Both CB and CC

Ans ✗ A. A
✗ B. B
✓ C. C
✗ D. D

Question ID : **5834937590**
Status : **Answered**
Chosen Option : **D**

Q.69 If any input of TTL circuit is left floating it functions as if it is connected to

A. 0 level
B. High impedance level
C. 1 level
D. Don't care

Ans ✗ A. A
✗ B. B
✓ C. C
✗ D. D

Question ID : **5834937598**
Status : **Answered**
Chosen Option : **B**

Q.70 What is DDR -DRAM ?

A. Dynamic Data Rate Double Random Access Memory

B. Double Data Rate Dynamic Random Access Memory

C. Dynamic Data Register Double Random Access Memory

D. Digital Data Register Dynamic Random Access Memory

Ans

✗ A. A

✓ B. B

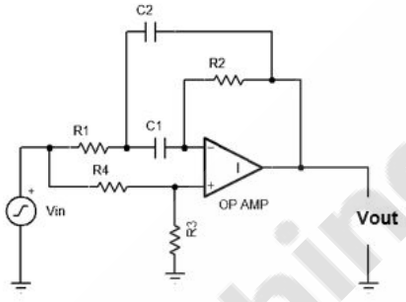
✗ C. C

✗ D. D

Question ID : **5834937599**
Status : **Answered**
Chosen Option : **D**

Q.71

What is the functionality of the given circuit below?



A. Band Pass Filter

B. Low Pass Filter

C. Band Stop Filter

D. High Pass Filter

Ans

✓ A. A

✗ B. B

✗ C. C

✗ D. D

Question ID : **5834937619**
Status : **Answered**
Chosen Option : **A**

Q.72 The frequencies allotted for FM broadcasting is

A. 88MHz - 108MHz
B. 10MHz - 30MHz
C. 50MHz - 170MHz
D. 60MHz - 80MHz

Ans
✔ A. A
✘ B. B
✘ C. C
✘ D. D

Question ID : **5834937624**
Status : **Answered**
Chosen Option : **A**

Q.73 In a CRO, what is the calibration signal generally available?

A. DC
B. Sawtooth
C. Sine
D. Square

Ans
✘ A. A
✔ B. B
✘ C. C
✘ D. D

Question ID : **5834937634**
Status : **Answered**
Chosen Option : **C**

Q.74 What is the output waveform of a comparator circuit, if the input is Sine wave?

A. Rectangular wave
B. Sinewave
C. Ramp wave
D. Sawtooth eave

Ans
✔ A. A
✘ B. B
✘ C. C
✘ D. D

Question ID : **5834937639**
Status : **Answered**
Chosen Option : **C**

Q.75 The difference between Latch and Flip flop is

A. Latch is edge triggered, Flip flop is level triggered
B. Latch is level triggered, Flip flop is edge triggered
C. Both are level triggered
D. Both are edge triggered

Ans
✘ A. A
✔ B. B
✘ C. C
✘ D. D

Question ID : **5834937597**
Status : **Answered**
Chosen Option : **A**

Q.76 At room temperature, an intrinsic silicon crystal acts as

A. a battery
B. a conductor
C. an insulator
D. a capacitor

Ans
✘ A. A
✘ B. B
✔ C. C
✘ D. D

Question ID : **5834937584**
Status : **Answered**
Chosen Option : **C**

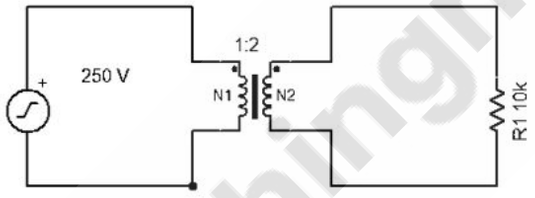
Q.77 If a transformer has turn ration of 1:2 and the primary current is 20A then, what will be the secondary current?

A. 40A
B. 20A
C. 10A
D. 100A

Ans ✗ A. A
✗ B. B
✓ C. C
✗ D. D

Question ID : **5834937646**
Status : **Answered**
Chosen Option : **A**

Q.78 If the transformer given is ideal transformer, then what is the power dissipated in the primary of the transformer given?



A. 250 W
B. 0.25 W
C. 50 W
D. 25 W

Ans ✗ A. A
✗ B. B
✗ C. C
✓ D. D

Question ID : **5834937651**
Status : **Answered**
Chosen Option : **C**

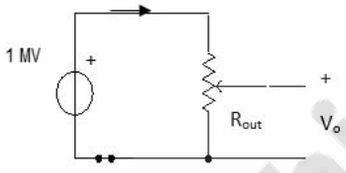
Q.79 Which of the following conditions are needed to properly bias a NPN transistor amplifier?

A. Forward bias the base-emitter junction and reverse bias the base collector junction.
B. Forward bias the collector-base junction and reverse bias the emitter-base junction
C. Apply a positive voltage on the n-type material and a negative voltage on the p-type material
D. Apply a large voltage on the base

Ans ✔ A. A
✘ B. B
✘ C. C
✘ D. D

Question ID : **5834937582**
Status : **Answered**
Chosen Option : **A**

Q.80 What is the value of R_{out} for the voltage divider circuit given below so that current I is limited to 0.5A when V_o is 100V?



A. 2MΩ
B. 2kΩ
C. 200Ω
D. 2Ω

Ans ✘ A. A
✘ B. B
✔ C. C
✘ D. D

Question ID : **5834937613**
Status : **Answered**
Chosen Option : **B**