

Question Paper Preview

Notations :

- Options shown in green color and with ✓ icon are correct.
- Options shown in red color and with ✗ icon are incorrect.

Question Paper Name:	Junior Engineer Distribution
Subject Name:	Junior Engineer Distribution
Creation Date:	2018-08-21 17:58:45
Duration:	120
Total Marks:	300
Display Marks:	Yes
Share Answer Key With Delivery Engine:	No
Actual Answer Key:	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

Group Number :	1
Group Id :	5801495
Group Maximum Duration :	0
Group Minimum Duration :	120
Revisit allowed for view? :	No
Revisit allowed for edit? :	No
Break time:	0

	Technical
Section Id :	58014913
Section Number :	1
Section type :	Online
Mandatory or Optional:	Mandatory
Number of Questions:	75
Number of Questions to be attempted:	75
Display Number Panel:	Yes
Group All Questions:	No

Sub-Section Number:	1
Sub-Section Id:	58014913
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 580149401 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The specific conductance of a conductor is given by:

Options :

1. ✘ $\rho = \frac{AR}{l} \Omega\text{-m}$

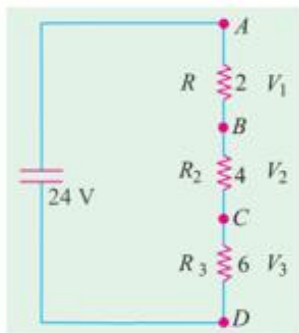
2. ✘ $\sigma = \frac{Gl}{A} \text{S-m}$

3. ✘ $\rho = \frac{AR}{l} \Omega/\text{m}$

4. ✔ $\sigma = \frac{Gl}{A} \text{S/m}$

Question Number : 2 Question Id : 580149402 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The value of V_2 (the voltage drop across R_2) in the circuit shown is:



Options :

1. ✘ 4 V

2. ✔ 8 V

3. ✘ 12 V

4. ✘ 16 V

Question Number : 3 Question Id : 580149403 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Two coils have coefficient of coupling as 0.8. A current of 3 A in coil 1 produces a total flux of 0.4 mWb. If the current in coil 1 is reduced to zero in 3 ms, the voltage induced in coil 2 is 85 V. Determine the inductance of coil 2 if number of turns of coil 1 is 300.

Options :

1. ✔ $L_2 = 282 \text{ mH}$

2. ✘ $L_2 = 282 \text{ H}$

3. ✘ $L_2 = 85 \text{ mH}$

4. ✘ $L_2 = 85 \text{ H}$

Question Number : 4 Question Id : 580149404 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

For an input signal of $v(t) = V_m \sin(\omega t) \text{ V}$, the average value of a half-rectified sine wave is:

Options :

1. ✘ $\frac{V_m}{2\pi}$

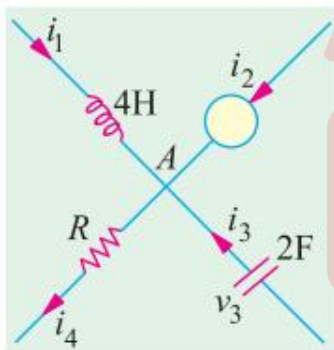
2. ✘ $\frac{2V_m}{\pi}$

3. ✔ $\frac{V_m}{\pi}$

4. ✘ $\frac{V_m}{4\pi}$

Question Number : 5 Question Id : 580149405 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Using Kirchhoff's Current Law (KCL), determine the voltage developed across the coil in the figure shown.



Given $i_2 = 5e^{-2t}$, $i_4 = 3 \sin t$, and $v_3 = 4e^{-2t}$

Options :

1. ✘ $3 \cos t - 22e^{-2t}$

2. ✔ $12 \cos t - 88e^{-2t}$

3. ✘ $3 \cos t + 22e^{-2t}$

4. ✘ $12 \cos t + 88e^{-2t}$

Question Number : 6 Question Id : 580149406 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In the measurement of 3-phase power using two wattmeter method, the value of phase angle when the two wattmeter reads equal reading is:

Options :

- ✘ 1°
- ✘ 60°
- ✔ 0°
- ✘ 90°

Question Number : 7 Question Id : 580149407 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The resistor value in a Y network that is equivalent to a Δ containing three resistors of $R \Omega$ each is:

Options :

- ✔ $\frac{R}{3} \Omega$ each
- ✘ $3R^2 \Omega$ each
- ✘ $\frac{R^2}{3} \Omega$ each
- ✘ $3R \Omega$ each

Question Number : 8 Question Id : 580149408 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In a 1-phase transformer, the emf per turn of the secondary side is:

Options :

- ✔ Same as emf per turn of the primary side
- ✘ Half the emf per turn of the primary side
- ✘ $\frac{3}{4}th$ the emf per turn of the primary side
- ✘ $\frac{1}{4}th$ the emf per turn of the primary side

Question Number : 9 Question Id : 580149409 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The Hall mobility (μ_H) is given by:

Options :

1. ✘ $\mu_H = e\tau m$

2. ✘ $\mu_H = \frac{em}{\tau}$

3. ✔ $\mu_H = \frac{e\tau}{m}$

4. ✘ $\mu_H = \frac{m\tau}{e}$

Question Number : 10 Question Id : 580149410 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

The DC resistivity of ferrites is many orders of magnitude:

Options :

1. ✔ Higher than that of paramagnetic, diamagnetic and ferromagnetic materials

2. ✘ Higher than that of paramagnetic and diamagnetic materials but lesser than ferromagnetic materials

3. ✘ Higher than that of paramagnetic and ferromagnetic materials but lesser than diamagnetic materials

4. ✘ Higher than that of ferromagnetic and diamagnetic materials but lesser than paramagnetic materials

Question Number : 11 Question Id : 580149411 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

The material that has the highest energy gap at room temperature is:

Options :

1. ✔ CdS

2. ✘ Ge

3. ✘ GaAs

4. ✘ Si

Question Number : 12 Question Id : 580149412 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

An example of a traditional ceramic is:

Options :

1. ✘ Carbides

2. ✘ Nitrides
3. ✘ Pure Oxides
4. ✔ Silicate Glass

Question Number : 13 Question Id : 580149413 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

The ionization energy for the pentavalent excess electrons in case of germanium is:

Options :

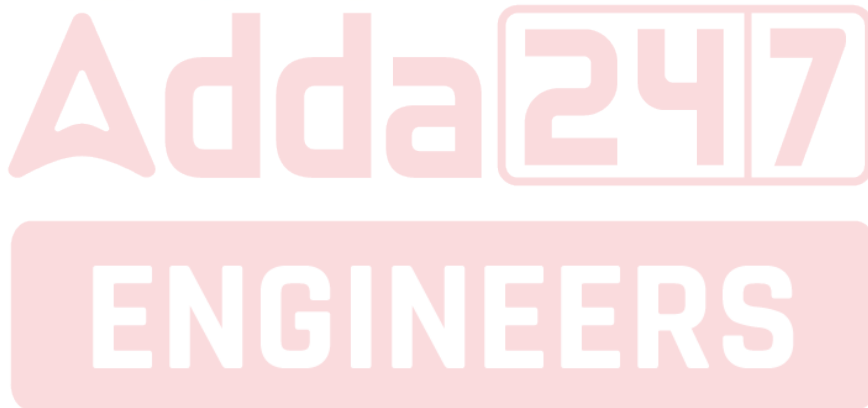
1. ✘ 0.0191 eV
2. ✔ 0.0105 eV
3. ✘ 0.191 eV
4. ✘ 0.105 eV

Question Number : 14 Question Id : 580149414 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Modified Ohm's law for electron current is given by:

Options :

1. ✔ $J_n = \frac{\sigma_e d\bar{\mu}}{e dx}$
2. ✘ $J_n = \frac{e d\bar{\mu}}{\sigma_e dx}$
3. ✘ $J_n = e\sigma_e \frac{d\bar{\mu}}{dx}$
4. ✘ $J_n = e + \sigma_e \frac{d\bar{\mu}}{dx}$



Question Number : 15 Question Id : 580149415 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Which of the following is not a fundamental property of a laser light?

Options :

1. ✘ It possesses high degree of coherence
2. ✔ It can be generated with low intensity
3. ✘ It can be produced with narrow line width

4. ✘ It can be produced with narrow beam width

Question Number : 16 Question Id : 580149416 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

The frequency of a 12-pole alternator running at a speed of 500 rpm is:

Options :

1. ✘ 60 Hz
2. ✘ 40 Hz
3. ✔ 50 Hz
4. ✘ 30 Hz

Question Number : 17 Question Id : 580149417 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

In a synchronous motor, the starting torque is:

Options :

1. ✘ Running torque
2. ✘ Pull-out torque
3. ✔ Breakaway torque
4. ✘ Pull-in torque

Question Number : 18 Question Id : 580149418 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

The maximum starting torque of a 3-phase induction motor occurs when:

Options :

1. ✘ Rotor resistance is $\frac{3}{4} r_h$ of the rotor reactance
2. ✘ Rotor resistance is $\frac{1}{2} r_h$ of the rotor reactance
3. ✔ Rotor resistance is equal to the rotor reactance
4. ✘ Rotor resistance is $\frac{1}{4} r_h$ of the rotor reactance

Question Number : 19 Question Id : 580149419 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

A 1-phase 30 kVA, 200/120 V, 60 Hz transformer is connected to a 200 V supply. It draws rated current at 0.85 p.f. leading. Considering the transformer to be ideal, determine the kVA rating of the load.

Options :

1. ✘ 18
2. ✘ 35
3. ✔ 30
4. ✘ 28

Question Number : 20 Question Id : 580149420 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

For low starting torque applications, the type of 1-phase induction motor used is:

Options :

1. ✔ Shaded-pole type
2. ✘ Capacitor-run type
3. ✘ Capacitor-start/Capacitor-run type
4. ✘ Capacitor-start type

Question Number : 21 Question Id : 580149421 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In the method of measuring 3-phase power using two wattmeter, the reading of wattmeter W_1 for a capacitive type of load is given by:

(Note: Assume W_1 is connected between lines R & Y and W_2 is connected between lines B and Y.)

Options :

1. ✘ $W_1 = \sqrt{3} E_L I_L \cos (30^\circ - \phi)$
2. ✔ $W_1 = E_L I_L \cos (30^\circ - \phi)$
3. ✘ $W_1 = \sqrt{3} E_L I_L \cos (30^\circ + \phi)$
4. ✘ $W_1 = E_L I_L \cos (30^\circ + \phi)$

Question Number : 22 Question Id : 580149422 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A 230 V, 1-phase watt hour meter records a constant load of 10 A for 10 hours at unity p.f. If the meter disc makes 2300 revolutions during this period, what is the meter constant in revolutions/kWh?

Options :

1. ✓ 100 rev/kWh
2. ✗ 200 rev/kWh
3. ✗ 300 rev/kWh
4. ✗ 400 rev/kWh

Question Number : 23 Question Id : 580149423 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

The load angle of a 6-pole synchronous motor is 6° electrical. Its equivalent mechanical degree is:

Options :

1. ✓ 2°
2. ✗ 0.5°
3. ✗ 6°
4. ✗ 0.167°

Question Number : 24 Question Id : 580149424 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

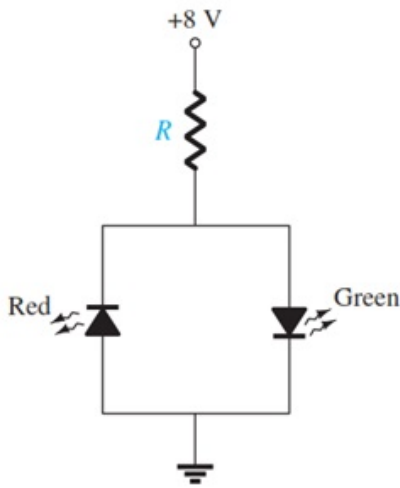
The intrinsic carrier (n_i) concentration, per cubic centimetre, for Gallium Arsenide (GaAs) is:

Options :

1. ✗ 1.5×10^{10}
2. ✗ 2.5×10^{13}
3. ✓ 1.7×10^6
4. ✗ 1.2×10^8

Question Number : 25 Question Id : 580149425 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Find the value of R in the circuit shown, so that a current of 20 mA flows through the “on” diode. Both the diodes have a reverse breakdown voltage of 3 V and an average turn-on voltage of 2 V.



Options :

1. ✘ 30 Ω
2. ✔ 300 Ω
3. ✘ 3 k Ω
4. ✘ 30 k Ω

Question Number : 26 Question Id : 580149426 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

As per Barkhausen criterion for oscillation, the magnitude of the loop gain βA must be:

Options :

1. ✘ Less than 1
2. ✔ Equal to 1
3. ✘ Greater than 1
4. ✘ Equal to 1.5

Question Number : 27 Question Id : 580149427 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A carrier wave of amplitude 1000 V is amplitude modulated by an audio signal to produce 30% AM. What is the amplitude of the side band?

Options :

1. ✘ 3 kV
2. ✔ 0.15 kV
3. ✘ 0.3 kV

4. ✘ 1.5 kV

Question Number : 28 Question Id : 580149428 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The result of binary addition of 16 and -83 using 2's compliment is:

Options :

1. ✘ 1000010_2

2. ✘ 1000011_2

3. ✘ -1000010_2

4. ✔ -1000011_2

Question Number : 29 Question Id : 580149429 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Silicon controlled switch (SCS) is a:

Options :

1. ✘ Single-layered device

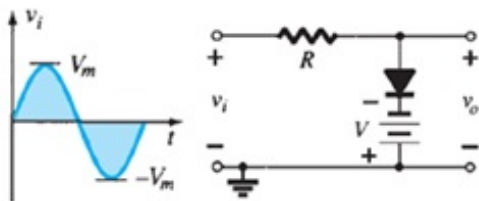
2. ✘ Double-layered device

3. ✘ 3-layered device

4. ✔ 4-layered device

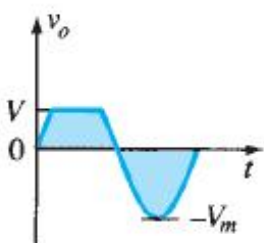
Question Number : 30 Question Id : 580149430 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The output of the following is:

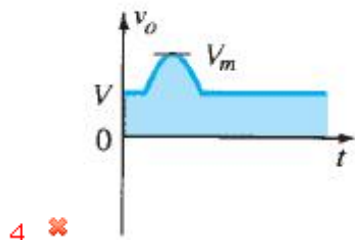
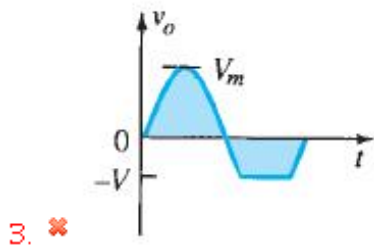
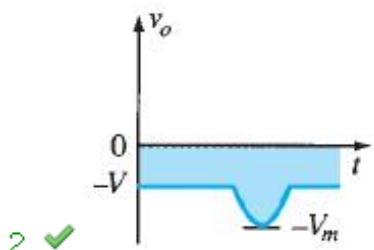


Assume ideal diode.

Options :



1. ✘



Question Number : 31 Question Id : 580149431 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

The frequency of oscillations of a clapp oscillator is:

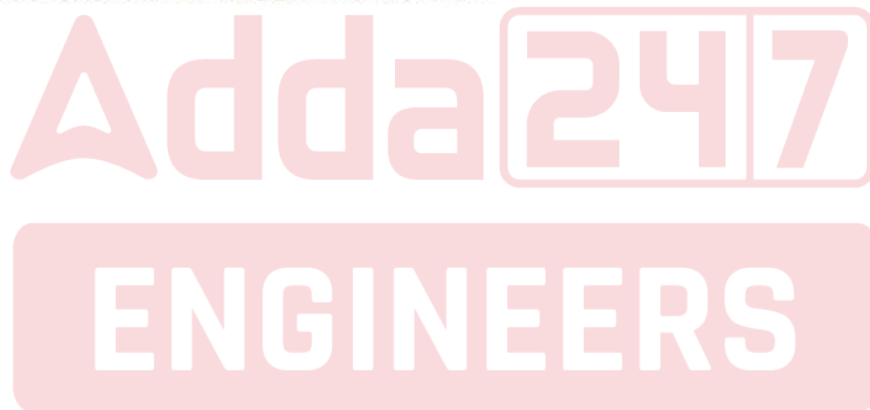
Options :

1. ✓ $f = \frac{1}{2\pi\sqrt{LC_2}}$

2. ✗ $f = \frac{1}{2\pi\sqrt{LC}}$

3. ✗ $f = \frac{1}{2\pi RC\sqrt{6}}$

4. ✗ $f = \frac{1}{2\pi RC}$



Question Number : 32 Question Id : 580149432 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

The ripple voltage of a full-wave rectifier with a 100 μ F filter capacitor connected to a load drawing 50 mA is:

Options :

1. ✗ 2.4 V

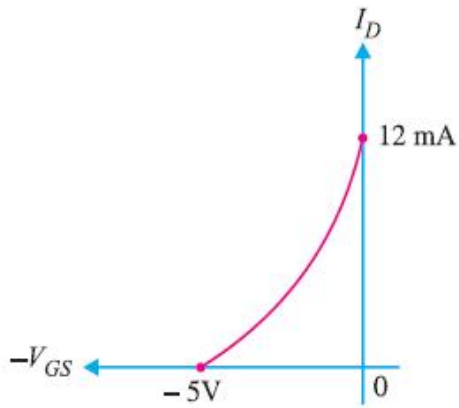
2. ✗ 4.8 V

3. ✓ 1.2 V

4. ✘ 0.6 V

Question Number : 33 Question Id : 580149433 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

The following figure shows the transfer characteristic curve of a JFET. Its equation of drain current I_D is given by:



Options :

1. ✘ $12 \left[1 - \frac{V_{GS}}{5} \right]^2 \text{ mA}$

2. ✔ $12 \left[1 + \frac{V_{GS}}{5} \right]^2 \text{ mA}$

3. ✘ $12 \left[1 - \frac{V_{GS}}{5} \right]^2 \text{ A}$

4. ✘ $12 \left[1 + \frac{V_{GS}}{5} \right]^2 \text{ A}$

Question Number : 34 Question Id : 580149434 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

The two basic forms of moving-iron type voltmeter and ammeter, respectively, are:

Options :

1. ✘ Split-phase type and shaded-pole type

2. ✘ Induction type and electrostatic type

3. ✔ Attraction type and repulsion type

4. ✘ Permanent magnet type and electrodynamic type

Question Number : 35 Question Id : 580149435 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

A 2 cm long CRT has an anode voltage of 2 kV and parallel deflecting plates that are 5 mm apart. The screen is 30 cm from the centre of the plates. If the input voltage applied to the deflecting plates through amplifiers has an overall gain of 100, determine the input voltage required to deflect the beam through 3 cm.

Options :

1. ✘ 0.1 V
2. ✔ 1 V
3. ✘ 10 V
4. ✘ 100 V

Question Number : 36 Question Id : 580149436 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

In Kelvin's double bridge, the unknown resistance is given by:

Options :

1. ✔ $X = \left[\frac{P}{Q} S + \frac{qr \left[\frac{P-p}{Q-q} \right]}{p+q+r} \right]$
2. ✘ $X = \left[\frac{P}{Q} S - \frac{q}{p+q+r} \right]$
3. ✘ $X = \left[\frac{P}{Q} S + \frac{q}{p+q-r} \right]$
4. ✘ $X = \left[\frac{P}{Q} S - \frac{qr \left[\frac{P-p}{Q-q} \right]}{p+q+r} \right]$

Question Number : 37 Question Id : 580149437 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

A certain system has a state model as

$$\begin{bmatrix} \dot{X}_1 \\ \dot{X}_2 \end{bmatrix} = \begin{bmatrix} -2 & -3 \\ 4 & 2 \end{bmatrix} \begin{bmatrix} X_1 \\ X_2 \end{bmatrix} + \begin{bmatrix} 3 \\ 5 \end{bmatrix} U$$

and $Y = [1 \quad 1] \begin{bmatrix} X_1 \\ X_2 \end{bmatrix}$ with $D = 0$. Its transfer function is:

Options :

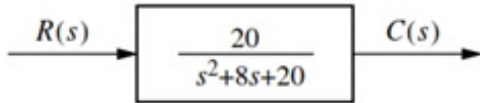
1. ✔ $\frac{[8s+1]}{s^2+8}$
2. ✘ $\frac{[2s+43]}{s^2+8}$

3. ✘ $\frac{[8s-43]}{s^2+8}$

4. ✘ $\frac{[2s-1]}{s^2+8}$

Question Number : 38 Question Id : 580149438 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The nature of the response shown below is:



Options :

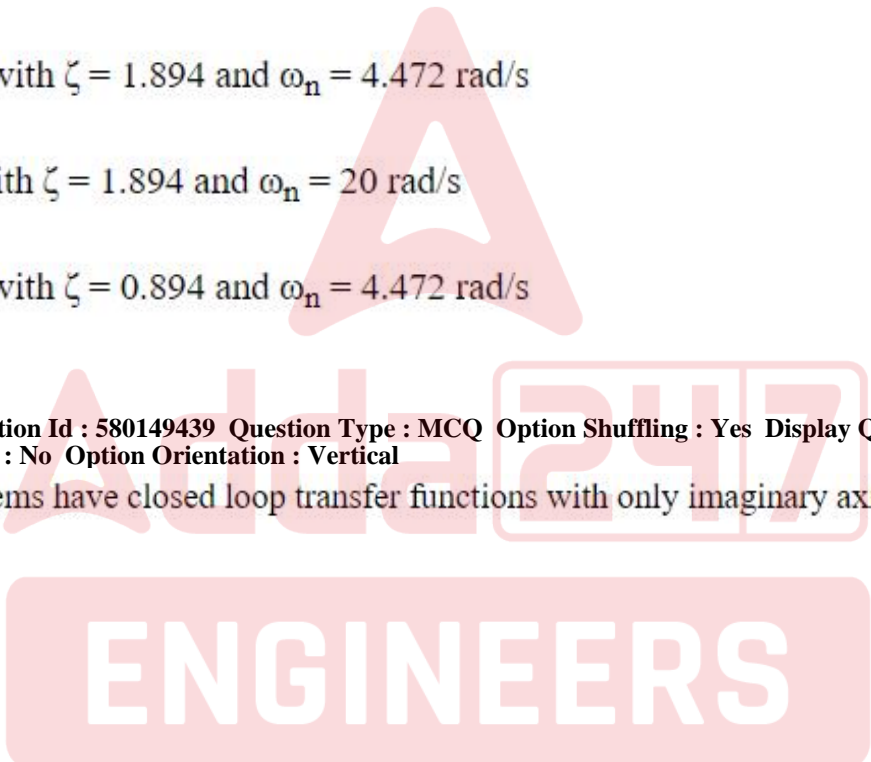
- 1. ✘ Overdamped with $\zeta = 0.894$ and $\omega_n = 20$ rad/s
- 2. ✘ Underdamped with $\zeta = 1.894$ and $\omega_n = 4.472$ rad/s
- 3. ✘ Overdamped with $\zeta = 1.894$ and $\omega_n = 20$ rad/s
- 4. ✔ Underdamped with $\zeta = 0.894$ and $\omega_n = 4.472$ rad/s

Question Number : 39 Question Id : 580149439 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Marginally stable systems have closed loop transfer functions with only imaginary axis poles of multiplicity:

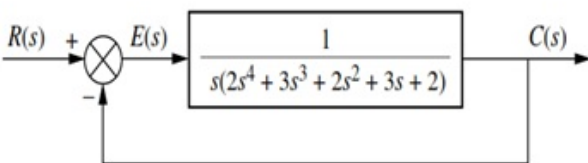
Options :

- 1. ✔ 1
- 2. ✘ 2
- 3. ✘ 3
- 4. ✘ 4



Question Number : 40 Question Id : 580149440 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Find the number of poles in the left half plane (LHP), the right half plane (RHP) and on the $j\omega$ -axis for system shown below. Also state whether the system is stable.



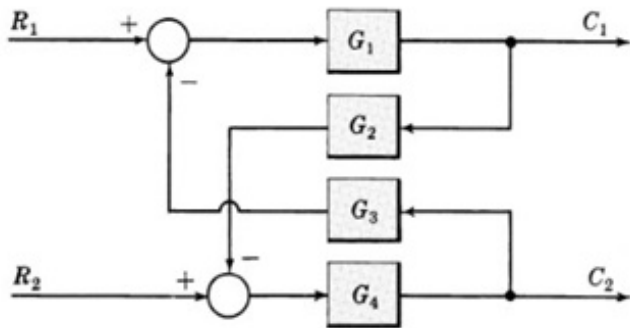
Options :

- 1. ✔ 3 LHP poles; 2 RHP poles; 0 $j\omega$ pole; system is unstable

2. ✘ 2 LHP poles; 3 RHP poles; 0 $j\omega$ pole; system is stable
3. ✘ 2 LHP poles; 3 RHP poles; 0 $j\omega$ pole; system is unstable
4. ✘ 3 LHP poles; 2 RHP poles; 0 $j\omega$ pole; system is stable

Question Number : 41 Question Id : 580149441 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

In the below figure, output C_1 due to R_1 and R_2 is given by:



Options :

1. ✔ $\frac{G_1 R_1 - G_1 G_3 G_4 R_2}{1 - G_1 G_2 G_3 G_4}$
2. ✘ $\frac{G_1 R_1 - G_2 G_3 G_4 R_2}{1 - G_1 G_2 G_3 G_4}$
3. ✘ $\frac{G_1 R_1 - G_1 G_3 G_2 R_2}{1 - G_1 G_2 G_3 G_4}$
4. ✘ $\frac{G_1 R_1 - G_1 G_2 G_3 G_4 R_2}{1 - G_1 G_2 G_3 G_4}$

Question Number : 42 Question Id : 580149442 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

The megohmmeter is used for the measurement of:

Options :

1. ✘ High value capacitance
2. ✘ Medium value resistance
3. ✔ High value resistance
4. ✘ Low value resistance

Question Number : 43 Question Id : 580149443 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

The transfer function of the lead compensator is:

Options :

1. ✓ $G_c(s) = \frac{1}{\beta} \frac{s + \frac{1}{T}}{s + \frac{1}{\beta T}}$ where $\beta < 1$

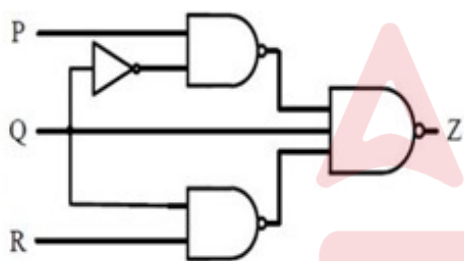
2. ✗ $G_c(s) = \frac{1}{\beta} \frac{s + \frac{1}{T}}{s + \frac{1}{\beta T}}$ where $\beta > 1$

3. ✗ $G_c(s) = \frac{1}{\beta} \frac{s - \frac{1}{T}}{s - \frac{1}{\beta T}}$ where $\beta > 1$

4. ✗ $G_c(s) = \frac{1}{\beta} \frac{s - \frac{1}{T}}{s - \frac{1}{\beta T}}$ where $\beta < 1$

Question Number : 44 Question Id : 580149444 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

From the output Z of the logic circuit shown, determine \bar{Z} .



Options :

1. ✓ $Q\bar{R}$

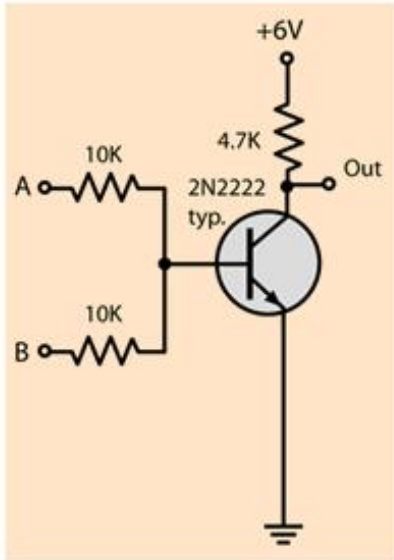
2. ✗ $\bar{Q}R$

3. ✗ $\bar{R}\bar{Q} + P$

4. ✗ $\bar{P} + QR$

Question Number : 45 Question Id : 580149445 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

The following circuit behaves as a:



Options :

1. ✘ AND Gate
2. ✘ NAND Gate
3. ✘ OR Gate
4. ✔ NOR Gate

Question Number : 46 Question Id : 580149446 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

$A + \bar{A}B = A + B$ is stated as per:

Options :

1. ✘ Commutative law
2. ✘ Associative law
3. ✔ Distributive law
4. ✘ Absorptive law

Question Number : 47 Question Id : 580149447 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

How many J-K flip-flops are required to achieve a frequency division of 8?

Options :

1. ✘ 1
2. ✘ 2

3. ✓ 3

4. ✗ 4

Question Number : 48 Question Id : 580149448 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

What would be yielded after simplifying the following Boolean expression:

$$Y = \overline{(A + \bar{B} + C)} + (B + \bar{C})$$

Options :

1. ✗ $Y = (\bar{A}\bar{B}\bar{C}) + (\bar{B}C)$

2. ✗ $Y = (\bar{A} + B + \bar{C})(\bar{B} + C)$

3. ✓ $Y = 0$

4. ✗ $Y = 1$

Question Number : 49 Question Id : 580149449 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

For which of the following utility will the demand factor be 0.5?

Options :

1. ✗ Motor Load (< 10 HP)

2. ✗ Residential load (< 0.25 kW)

3. ✗ Commercial load (for Restaurants)

4. ✓ Residential load (over 1 kW)

Question Number : 50 Question Id : 580149450 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Which of the following power plants is most efficient but has high initial cost?

Options :

1. ✗ Diesel power plant

2. ✗ Nuclear power plant

3. ✓ Hydro-electric power plant

4. ✗ Steam power plant

Question Number : 51 Question Id : 580149451 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

An alternator is supplying a load of 200 kW at a power factor of 0.5 lagging. If power factor is raised to unity, how many more kW can alternator supply for the same kVA loading?

Options :

1. ✓ 200 kW
2. ✗ 400 kW
3. ✗ 800 kW
4. ✗ 1600 kW

Question Number : 52 Question Id : 580149452 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Which of the following arresters is also called as a protector tube?

Options :

1. ✗ Multi-gap arrester
2. ✓ Expulsion type lightning arrester
3. ✗ Valve type lightning arrester
4. ✗ Horn gap arrester

Question Number : 53 Question Id : 580149453 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

If a power transformer has a star-connected primary and a delta-connected secondary, then the CT connections on its primary and secondary sides should be:

Options :

1. ✓ Delta and Star respectively
2. ✗ Star and Delta respectively
3. ✗ Delta and Delta respectively
4. ✗ Star and Star respectively

Question Number : 54 Question Id : 580149454 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

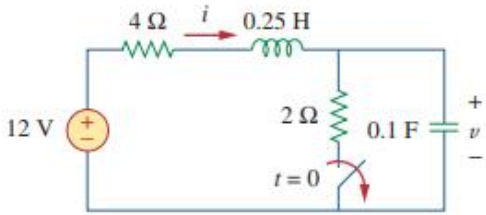
What is the maximum economical voltage range for vacuum CBs?

Options :

1. ✓ 36 kV
2. ✗ 1.1 kV
3. ✗ 25 kV
4. ✗ 400 kV

Question Number : 55 Question Id : 580149455 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

The switch in the circuit shown below has been closed for a long time. It is open at $t = 0$. Determine $\frac{dv}{dt}(0^+)$.

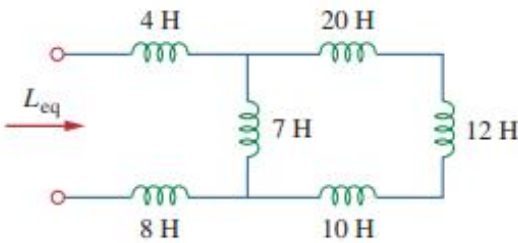


Options :

1. ✗ 0 V/s
2. ✗ 2 V/s
3. ✓ 20 V/s
4. ✗ 200 V/s

Question Number : 56 Question Id : 580149456 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Determine the value of L_{eq} in the circuit shown below:

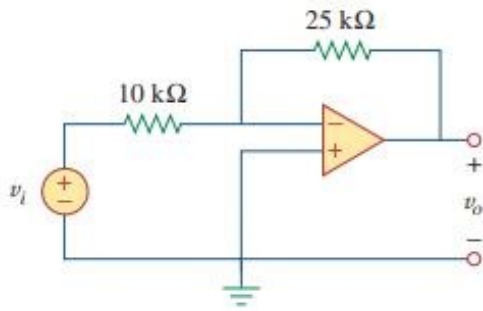


Options :

1. ✗ 2 H
2. ✓ 18 H
3. ✗ 61 H
4. ✗ 7 H

Question Number : 57 Question Id : 580149457 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

If the input voltage $v_i = 5$ V, the output voltage v_o is:

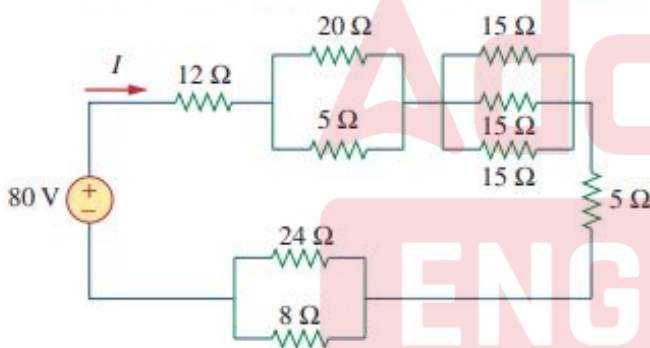


Options :

1. ✘ -2 V
2. ✘ 2 V
3. ✔ -12.5 V
4. ✘ 12.5 V

Question Number : 58 Question Id : 580149458 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

The current (I) supplied by the source in the circuit shown below is:

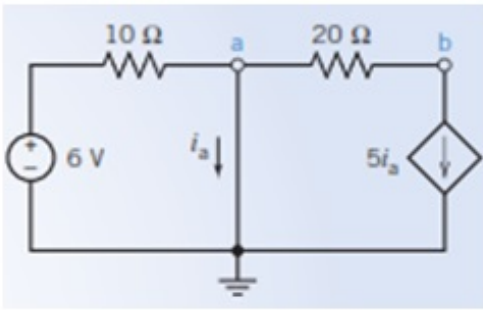


Options :

1. ✘ 10 A
2. ✘ 7.5 A
3. ✘ 5 A
4. ✔ 2.5 A

Question Number : 59 Question Id : 580149459 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Determine the node voltages corresponding to the nodes a and b for the circuit shown below:

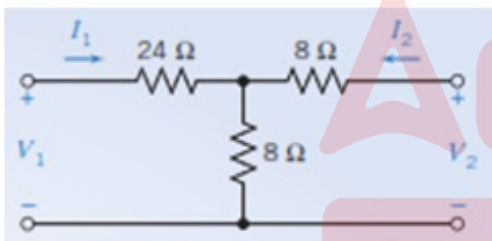


Options :

1. ✘ $v_a = 0 \text{ V}$ and $v_b = 10 \text{ V}$
2. ✔ $v_a = 0 \text{ V}$ and $v_b = -10 \text{ V}$
3. ✘ $v_a = 10 \text{ V}$ and $v_b = 0 \text{ V}$
4. ✘ $v_a = -10 \text{ V}$ and $v_b = 0 \text{ V}$

Question Number : 60 Question Id : 580149460 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Find the Y parameters of the two-port network shown below:



Options :

1. ✘ $Y = \begin{bmatrix} \frac{1}{14} & -\frac{1}{56} \\ -\frac{1}{56} & \frac{1}{28} \end{bmatrix} \text{ mho}$
2. ✔ $Y = \begin{bmatrix} \frac{1}{28} & -\frac{1}{56} \\ -\frac{1}{56} & \frac{1}{14} \end{bmatrix} \text{ mho}$
3. ✘ $Y = \begin{bmatrix} \frac{1}{28} & \frac{1}{56} \\ \frac{1}{56} & \frac{1}{14} \end{bmatrix} \text{ mho}$

4. ✘
$$Y = \begin{bmatrix} \frac{1}{14} & \frac{1}{56} \\ \frac{1}{56} & \frac{1}{28} \end{bmatrix} \text{ mho}$$

Question Number : 61 Question Id : 580149461 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

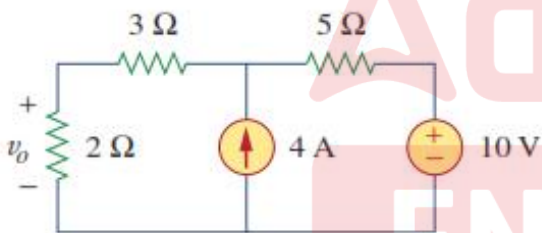
The transfer function $H(s) = \frac{s^2 + \frac{1}{LC}}{s^2 + \frac{R}{L}s + \frac{1}{LC}}$ pertains to which type of filter?

Options :

- 1. ✘ Low-pass
- 2. ✘ High-pass
- 3. ✔ Band-stop
- 4. ✘ Band-pass

Question Number : 62 Question Id : 580149462 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Using superposition theorem, find v_o in the below circuit:



Options :

- 1. ✘ 2 V
- 2. ✘ 4 V
- 3. ✔ 6 V
- 4. ✘ 8 V

Question Number : 63 Question Id : 580149463 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Check the following program in 8085 microprocessor.

```
MVI A, 8FH
MVI B, 68H
ADD B
```

The status of CY, AC, P and S for the program is:

Options :

1. ✓ AC = 1; CY = 0; S = 1; P = 0
2. ✗ AC = 0; CY = 0; S = 1; P = 0
3. ✗ AC = 0; CY = 1; S = 0; P = 1
4. ✗ AC = 1; CY = 1; S = 0; P = 1

Question Number : 64 Question Id : 580149464 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

In 8085 microprocessor, assume the accumulator contains AAH and CY = 0. How many times the instruction RAL must be executed so that the accumulator reads A9H. What will be the CY bit reading at that instant?

Options :

1. ✗ 4 times; CY = 1
2. ✓ 2 times; CY = 0
3. ✗ 4 times; CY = 0
4. ✗ 2 times; CY = 1

Question Number : 65 Question Id : 580149465 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

The peripheral that belongs to the category of special purpose peripherals is:

Options :

1. ✗ Programmable interval timer
2. ✗ Programmable DMA controller
3. ✗ Programmable interrupt controller
4. ✓ Programmable keyboard and display interface

Question Number : 66 Question Id : 580149466 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

In 8085 microprocessor, assume that the stack pointer is pointing to the memory location 2000H and register DE contains value 1050H. After the execution of instruction PUSH D, the stack pointer would be pointing at:

Options :

1. ✗ 2000H
2. ✗ 1FFDH

3. ✘ 1FFFH

4. ✔ 1FFEH

Question Number : 67 Question Id : 580149467 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

In 8085 microprocessor, the first machine cycle of every instruction is:

Options :

1. ✘ I/O Read Cycle

2. ✘ Memory Write Cycle

3. ✔ Opcode Fetch Cycle

4. ✘ Memory Read Cycle

Question Number : 68 Question Id : 580149468 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

The 8th bit of program status word (PSW) of 8086 microprocessor represents which of the following flags?

Options :

1. ✘ Overflow flag

2. ✘ Direction flag

3. ✘ Interrupt enable flag

4. ✔ Trap flag

Question Number : 69 Question Id : 580149469 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Consider the following 8086 assembly language program:

```
MOV AX, BB11H
```

```
MOV CX, 1122H
```

```
ADD AX, CX
```

```
HLT
```

The result of this program is:

Options :

1. ✘ CX = CC33H

2. ✔ AX = CC33H

3. ✘ CX = BB11H

4. ✘ AX = BB11H

Question Number : 70 Question Id : 580149470 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

The minimum inductance (L_{min}) for continuous current for a boost converter is given by (where D is duty ratio):

Options :

1. ✔ $L_{min} = \frac{D(1-D)^2 R}{2f}$

2. ✘ $L_{min} = \frac{D(1+D)^2 R}{2f}$

3. ✘ $L_{min} = \frac{D(1-D)R}{2f}$

4. ✘ $L_{min} = \frac{D(1+D)R}{2f}$

Question Number : 71 Question Id : 580149471 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

For a 50 Hz supply, the sub cycle surge current rating of a thyristor is given by:

Options :

1. ✘ $I_{sb} = t \sqrt{\frac{I}{100}}$

2. ✘ $I_{sb} = I \sqrt{\frac{100}{t}}$

3. ✔ $I_{sb} = I \sqrt{\frac{1}{100t}}$

4. ✘ $I_{sb} = t \sqrt{100I}$

Question Number : 72 Question Id : 580149472 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Gain-Modulated Field Effect Transistor is also called:

Options :

1. ✘ MOSFET

2. ✔ IGBT

3. ✘ BJT

4. ✘ MOS-Controlled Thyristor

Question Number : 73 Question Id : 580149473 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

A DC chopper has a resistive load of $R = 10 \Omega$ and an input voltage of $V_s = 220 \text{ V}$. When the chopper switch remains in the ON state, its voltage drop is $V_{ch} = 2 \text{ V}$. If the duty cycle is 50%, determine its average output voltage V_o .

Options :

1. ✘ 111 V

2. ✘ 110 V

3. ✔ 109 V

4. ✘ 108 V

Question Number : 74 Question Id : 580149474 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

A single phase full converter delivers power to a resistive load R . For an AC source voltage of V_s , the average output voltage V_o is given by (where α is firing angle):

Options :

1. ✘ $\frac{\sqrt{2}V_s}{\pi}(1 - \cos\alpha)$

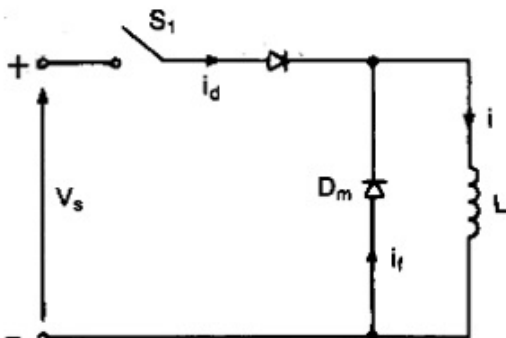
2. ✔ $\frac{\sqrt{2}V_s}{\pi}(1 + \cos\alpha)$

3. ✘ $\frac{\sqrt{2}V_s}{\pi}(1 + \sin\alpha)$

4. ✘ $\frac{\sqrt{2}V_s}{\pi}(1 - \sin\alpha)$

Question Number : 75 Question Id : 580149475 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

The source voltage for the circuit shown is 220 V and the load inductance is 220 μH . If the switch is closed for a time $t_1 = 100 \mu\text{s}$, then the load current will be:



Options :

- ✘ 10 A
- ✔ 100 A
- ✘ 0.1 A
- ✘ 0.01 A

General Aptitude and Reasoning

Section Id :	58014914
Section Number :	2
Section type :	Online
Mandatory or Optional:	Mandatory
Number of Questions:	25
Number of Questions to be attempted:	25
Display Number Panel:	Yes
Group All Questions:	No

Sub-Section Number:	1
Sub-Section Id:	58014914
Question Shuffling Allowed :	Yes

Question Number : 76 Question Id : 580149476 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Select the option that is related to the third term in the same way as the second term is related to the first term.

Fierce : Violent :: Viable : ?

Options :

- ✘ Futile
- ✘ Impracticable
- ✔ Feasible
- ✘ Hopeless

Question Number : 77 Question Id : 580149477 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Select the option that is related to the third term in the same way as the second term is related to the first term.

TRADE : SSZED :: DANCE : ?

Options :

- ✘ CZMBD

2. ✓ CBMDD

3. ✗ EBODF

4. ✗ ECNAD

Question Number : 78 Question Id : 580149478 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Select the option that is related to the third term in the same way as the second term is related to the first term.

12 : 42 :: 28 : ?

Options :

1. ✓ 98

2. ✗ 100

3. ✗ 102

4. ✗ 105

Question Number : 79 Question Id : 580149479 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

The words in the given pairs, except one, bear a certain relationship. Choose the pair in which the words are differently related.

Options :

1. ✗ Wood : Furniture

2. ✗ Wool : Pullover

3. ✗ Paper : Book

4. ✓ Shoes : Socks

Question Number : 80 Question Id : 580149480 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Choose the correct alternative from the given options that will complete the number series.

7, 17, 31, 65, 127, ?, 511

Options :

1. ✗ 251

2. ✓ 257

3. ✗ 254

4. ✘ 369

Question Number : 81 Question Id : 580149481 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Which one set of letters when sequentially placed at the gaps in the given letter series shall complete it?

_rs_pr_q__sqprs_

Options :

1. ✘ p, r, s, qp, s

2. ✘ p, q, s, rp, p

3. ✔ p, q, s, pr, q

4. ✘ p, q, s, pr, p

Question Number : 82 Question Id : 580149482 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

If with the second, third, fifth, eighth and ninth letters of the word 'ORGANISATION' a meaningful word is formed, then the first letter of the word is the answer. If no word is possible, then X is the answer.

Options :

1. ✘ A

2. ✘ T

3. ✔ G

4. ✘ X

Question Number : 83 Question Id : 580149483 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Arrange the given words in the sequence in which they occur in the dictionary and then choose the correct sequence.

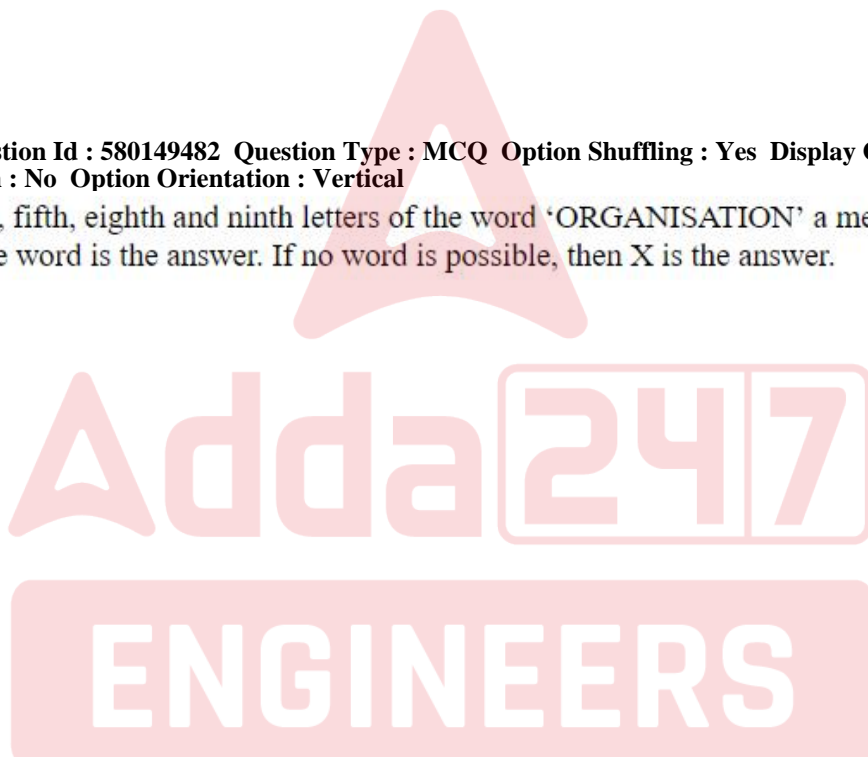
1. Credibility
2. Crescent
3. Creation
4. Cripple
5. Credulous

Options :

1. ✘ 1, 5, 3, 4, 2

2. ✔ 3, 1, 5, 2, 4

3. ✘ 3, 2, 4, 5, 1



4. ✘ 5, 1, 2, 3, 4

Question Number : 84 Question Id : 580149484 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Seven friends Arya, Bhanu, Shiva, Deepak, Ravi, Jai and Gaurav are sitting in a circle facing the centre. Jai is to the immediate right of Arya. Ravi is between Arya and Deepak. Gaurav is not between Jai and Shiva. Who are Bhanu's neighbours?

Options :

1. ✔ Jai and Shiva

2. ✘ Arya and Jai

3. ✘ Shiva and Deepak

4. ✘ Deepak and Arya

Question Number : 85 Question Id : 580149485 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Seven friends Arya, Bhanu, Shiva, Deepak, Ravi, Jai and Gaurav are sitting in a circle facing the centre. Jai is to the immediate right of Arya. Ravi is between Arya and Deepak. Gaurav is not between Jai and Shiva. What is Jai's position?

Options :

1. ✘ Immediate right of Bhanu

2. ✘ Third to the left of Shiva

3. ✘ Immediate left of Arya

4. ✔ Immediate left of Bhanu

Question Number : 86 Question Id : 580149486 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Ravi has a brother Avi. Ravi is the son of Prakash. Dinesh is Prakash's father. In terms of relationship, how is Dinesh related to Avi?

Options :

1. ✘ Grandson

2. ✔ Grandfather

3. ✘ Brother

4. ✘ Uncle

Question Number : 87 Question Id : 580149487 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

'M S N' means 'M is the mother of N', 'M # N' means 'M is the husband of N' and 'M * N' means 'M is the daughter of N'. If 'P * F # G S Q', then how is 'P' related to 'Q'?

Options :

- ✘ Daughter
- ✘ Mother
- ✔ Sister
- ✘ Wife

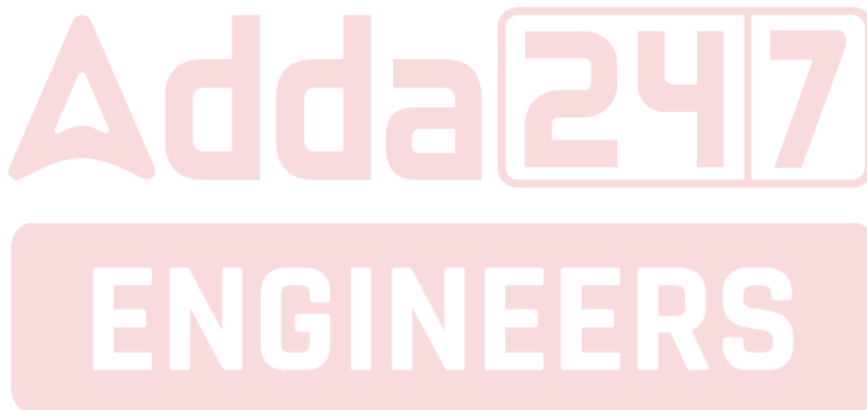
Question Number : 88 Question Id : 580149488 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Listed below are 10 students as 'QR...YZ' in column I and their 7 characteristics as 'AB...FG'. Which characteristics are common to all the students?

I. Students	II. Characteristics
QRV	ABDF
XYW	CG
TURVW	ACE
UWXYZ	BEFG
TSQWZ	DEFG

Options :

- ✘ CE
- ✘ DG
- ✘ DE
- ✔ EF



Question Number : 89 Question Id : 580149489 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Listed below are 10 students as 'QR...YZ' in column I and their 7 characteristics as 'AB...FG'. Which student possesses all the characteristics?

I. Students	II. Characteristics
QRV	ABDF
XYW	CG
TURVW	ACE
UWXYZ	BEFG
TSQWZ	DEFG

Options :

- ✘ K
- ✔ W

3. ✘ Q

4. ✘ Z

Question Number : 90 Question Id : 580149490 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

From the given alternatives, select the word that CANNOT be formed by using the letters of the given word.

IMPERISHABLE

Options :

1. ✘ SAMPLE

2. ✘ IMPERIAL

3. ✘ MISERABLE

4. ✔ PRIMER

Question Number : 91 Question Id : 580149491 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

In a row of girls facing East, Jaya is twelfth from the left and Lata is twelfth from the right end. Priya, who is third to the right of Jaya, is fourth to the left of Lata in the row. How many girls are there in the row?

Options :

1. ✔ 30

2. ✘ 21

3. ✘ 32

4. ✘ 33

Question Number : 92 Question Id : 580149492 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Gargi is heavier than Shabana, but not heavier than Rashmi. Rashmi and Tanu are of the same weight. Gargi is lighter than Anita. Among all the girls, who is the lightest?

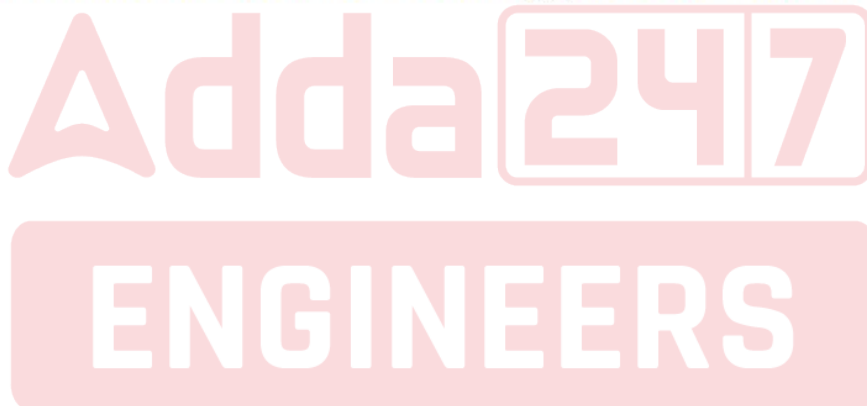
Options :

1. ✘ Anita

2. ✘ Rashmi and Tanu

3. ✔ Shabana

4. ✘ Gargi



Question Number : 93 Question Id : 580149493 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

In a certain code, 'FIVE' is written as '3587', 'MORE' is written as '9467'. How is 'MOVIE' written in that code?

Options :

1. ✓ 94857
2. ✗ 94587
3. ✗ 95487
4. ✗ 97584

Question Number : 94 Question Id : 580149494 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

In a certain code, 'LEADER' is written as 'AELERD'. Which word would be coded as 'WERDRA'?

Options :

1. ✗ REDRAW
2. ✗ WARDER
3. ✓ REWARD
4. ✗ DRAWER

Question Number : 95 Question Id : 580149495 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Amit walks 7 metres in front and 10 metres to the right. Then every time turning to his left, he walks 1, 13 and 13 metres, respectively. How far (shortest distance) away is he now from the starting point?

Options :

1. ✓ 5 metres
2. ✗ 7 metres
3. ✗ 10 metres
4. ✗ 13 metres

Question Number : 96 Question Id : 580149496 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Consider the given statements to be true even if they seem to be at variance from commonly known facts and decide which of the conclusions logically follows from the statements.

Statements: All chairs are tables.
Some tables are desks.
All desks are almirahs.

Conclusions:

- I. Some almirahs are chairs.
- II. Some almirahs are tables.
- III. Some desks are chairs.
- IV. No almirah is a chair.

Options :

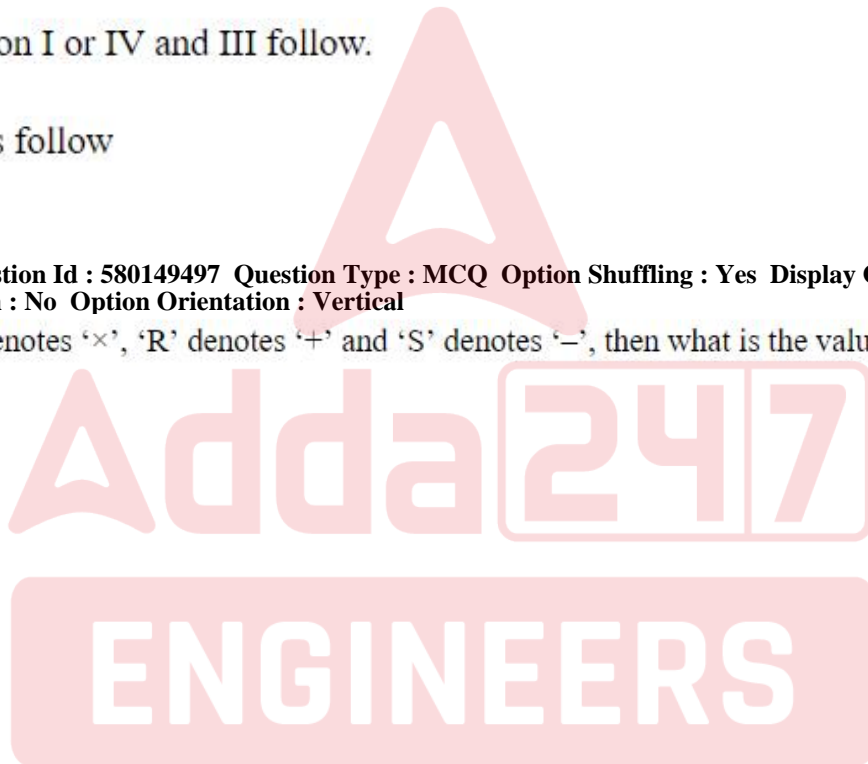
- 1. ✘ Either conclusion I or IV follows.
- 2. ✔ Only conclusions I or IV and II follow.
- 3. ✘ Either conclusion I or IV and III follow.
- 4. ✘ All conclusions follow

Question Number : 97 Question Id : 580149497 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

If 'Q' denotes '+', 'J' denotes '×', 'R' denotes '+' and 'S' denotes '-', then what is the value of 15 J 12 Q 4 R 9 S 3?

Options :

- 1. ✘ 49
- 2. ✘ 50
- 3. ✔ 51
- 4. ✘ 54



Question Number : 98 Question Id : 580149498 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Find the missing number from the given responses.

26	54	44
7	12	11
18	33	29
9	?	16

Options :

- 1. ✘ 13
- 2. ✘ 16

3. ✖ 18

4. ✔ 21

Question Number : 99 Question Id : 580149499 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

The following equations are solved on the basis of a certain system. Using the same system, pick the correct answer from amongst the four alternatives for the unsolved equation.

$$\begin{aligned}653 &= 70, \\472 &= 69, \\354 &= ?\end{aligned}$$

Options :

1. ✔ 50

2. ✖ 48

3. ✖ 37

4. ✖ 14

Question Number : 100 Question Id : 580149500 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Identify the diagram that best represents the relationship among the given classes:

Guava, Fruit, Apple

Options :

