

Section : Electrical Engineering

Q.1 Errors that occur after taking care of all gross and systematic errors are called as:

- Ans**
- ☒ 1. Environmental errors
 - ☒ 2. Limiting errors
 - ☒ 3. Instrumental errors
 - ☒ 4. Random errors

Question ID : 32287710018

Status : Answered

Chosen Option : 1

Q.2 In lighting installation using filament lamps, voltage drop of 1% results in:

- Ans**
- ☒ 1. No loss of light
 - ☒ 2. 3.5% loss in the light output
 - ☒ 3. 1.5% loss in the light output
 - ☒ 4. 15% loss in the light output

Question ID : 3228779953

Status : Answered

Chosen Option : 3

Q.3 Which one is NOT true for series resonance?

- Ans**
- ☒ 1. Power factor is unity.
 - ☒ 2. Impedance is maximum.
 - ☒ 3. No imaginary component exist.
 - ☒ 4. Current will be maximum.

Question ID : 32287710012

Status : Answered

Chosen Option : 2

Q.4 What will be the relation between the current through a pure inductor and the voltage across the inductor?

- Ans**
- ☒ 1. Current will lead by 90° .
 - ☒ 2. Current and voltage will be in phase.
 - ☒ 3. Current will lag by 45° .
 - ☒ 4. Current will lag by 90° .

Question ID : 32287710017

Status : Answered

Chosen Option : 4

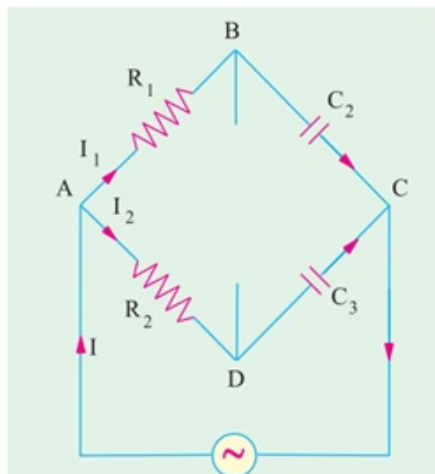
Q.5

Question ID : 3228779974

Status : Answered

Chosen Option : 1

Identify the bridge shown in the circuit.



- Ans
- ☒ 1. Wien parallel bridge
 - ☒ 2. De Sauty bridge
 - ☒ 3. Wien series bridge
 - ☒ 4. Schering bridge

Q.6 Which of the following materials has the highest resistivity?

- Ans
- ☒ 1. Aluminium
 - ☒ 2. Polystyrene
 - ☒ 3. Silicon
 - ☒ 4. Carbon

Question ID : 32287710002

Status : Answered

Chosen Option : 4

Q.7 Which of the below is an INCORRECT statement with regard to forward biased pn junction?

- Ans
- ☒ 1. The applied forward potential establishes an electric field, which acts against the field due to potential barrier.
 - ☒ 2. Current flows in the circuit due to the establishment of high resistance path
 - ☒ 3. The junction offers low resistance
 - ☒ 4. The potential barrier is reduced

Question ID : 3228779943

Status : Answered

Chosen Option : 2

Q.8 Which of the following laws states that: in any electrical network, the algebraic sum of the currents meeting at a point is zero?

- Ans
- ☒ 1. Kirchhoff's Voltage Law (KVL)
 - ☒ 2. Ohm's law
 - ☒ 3. Kirchhoff's Current Law (KCL)
 - ☒ 4. Faraday's law

Question ID : 3228779989

Status : Answered

Chosen Option : 3

Q.9 Two incandescent bulbs rated respectively as P_1 and P_2 for operation at a specified main voltage are connected in series across the mains. The total power supplied by the mains to the two bulbs will be:

- Ans
- ☒ 1. $P_1 P_2 / (P_1 + P_2)$
 - ☒ 2. $\sqrt{(P_1 \times P_2)}$
 - ☒ 3. $\sqrt{(P_1^2 + P_2^2)}$
 - ☒ 4. $P_1 + P_2$

Question ID : 32287710054

Status : Answered

Chosen Option : 3

Q.10 The SI unit of conductivity is:

Ans

Question ID : 32287710010

Status : Answered

- ☒ 1. Siemens-meter
- ☒ 2. Ohm/meter
- ☒ 3. Siemens/meter
- ☒ 4. Ohm-meter

Chosen Option : 3

Q.11 Which of the following is correctly ordered according to the ascending order of band gap energy?

- Ans
- ☒ 1. Silicon, Graphite, Diamond
 - ☒ 2. Graphite, Silicon, Diamond
 - ☒ 3. Silicon, Diamond, Graphite
 - ☒ 4. Diamond, Graphite, Silicon

Question ID : 32287710060

Status : Answered

Chosen Option : 4

Q.12 Which of the below can improve power factor?

- Ans
- ☒ 1. Single phase induction motor
 - ☒ 2. Over-excited synchronous motor running without mechanical load
 - ☒ 3. Alternator
 - ☒ 4. Three phase induction motor

Question ID : 32287710032

Status : Answered

Chosen Option : 2

Q.13 The effect owing to which a conductor carries more current on the surface as compared to the core is known as:

- Ans
- ☒ 1. Permeability
 - ☒ 2. Ferranti effect
 - ☒ 3. Skin effect
 - ☒ 4. Corona

Question ID : 32287710040

Status : Answered

Chosen Option : 3

Q.14 Pull-out torque of a squirrel cage induction motor occurs at that value of slip where rotor power factor equals:

- Ans
- ☒ 1. 0.5
 - ☒ 2. 0.866
 - ☒ 3. 0.707
 - ☒ 4. 1

Question ID : 3228779972

Status : Not Attempted and Marked For Review

Chosen Option : --

Q.15 The maximum reverse voltage that can be applied to a pn junction without damage to the junction is known as:

- Ans
- ☒ 1. Peak inverse voltage
 - ☒ 2. Maximum forward current
 - ☒ 3. Knee voltage
 - ☒ 4. Maximum power rating

Question ID : 3228779944

Status : Answered

Chosen Option : 1

Q.16 In alternators, damper winding are used to:

- Ans
- ☒ 1. Prevent hunting
 - ☒ 2. Reduce eddy current loss
 - ☒ 3. Reduce armature reaction
 - ☒ 4. Make the rotor dynamically balanced

Question ID : 32287710026

Status : Answered

Chosen Option : 1

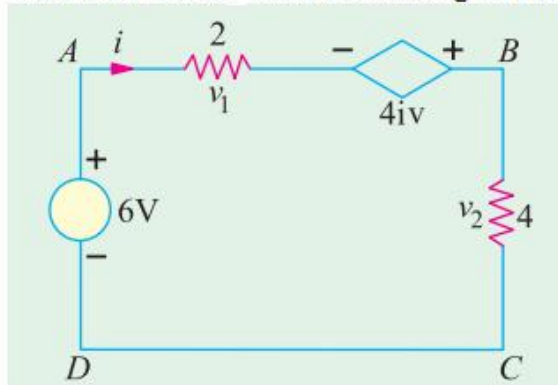
Q.17

Question ID : 3228779994

Status : Answered

Chosen Option : 3

Find the current i in the following circuit.



- Ans
- ☒ 1. 5 A
 - ☒ 2. 4 A
 - ☒ 3. 3 A
 - ☒ 4. 2 A

Q.18 The flicker effect of fluorescent lamps is more pronounced at:

- Ans
- ☒ 1. Lower voltages
 - ☒ 2. Higher voltages
 - ☒ 3. Lower frequencies
 - ☒ 4. Higher frequencies

Question ID : 3228779955

Status : Answered

Chosen Option : 1

Q.19 The instrument used to measure current is called:

- Ans
- ☒ 1. Wattmeter
 - ☒ 2. Ohm meter
 - ☒ 3. Energy meter
 - ☒ 4. CRO

Question ID : 32287710020

Status : Answered

Chosen Option : 4

Q.20 When a 400 V 50 Hz 6 pole induction motor is running at 960 rpm on no load, its slip is:

- Ans
- ☒ 1. 1%
 - ☒ 2. 4%
 - ☒ 3. 3%
 - ☒ 4. 2%

Question ID : 32287710030

Status : Answered

Chosen Option : 2

Q.21 Overspeed protection of the alternator is done with the help of:

- Ans
- ☒ 1. Over current relay
 - ☒ 2. Alarm
 - ☒ 3. Governor
 - ☒ 4. Differential relay

Question ID : 32287710037

Status : Answered

Chosen Option : 3

Q.22 Two sinusoidal currents are given by the equations : $i_1 = 10 \sin(\omega t + \pi/3)$ and $i_2 = 15 \sin(\omega t - \pi/4)$. The phase difference between them is:

- Ans
- ☒ 1. 75°
 - ☒ 2. 105°
 - ☒ 3. 60°
 - ☒ 4. 45°

Question ID : 3228779981

Status : Answered

Chosen Option : 2

Q.23 Which of the below is true with regard to DC arc welding?

Ans

Question ID : 3228779951

Status : Answered

✗ 1.

Both electrode as well as workpiece are made negative

✗ 2.

Both electrode as well as workpiece are made positive

✓ 3.

Electrode is made negative and workpiece positive

✗ 4.

Electrode is made positive and workpiece negative

Chosen Option : 3

Q.24 A 6-pole, 50-Hz, 3- ϕ induction motor has a full load speed of 950 rpm. At half-load, its speed would be:

Ans ✗ 1. 1000 rpm

✓ 2. 975 rpm

✗ 3. 475 rpm

✗ 4. 500 rpm

Question ID : 3228779973

Status : Answered

Chosen Option : 2

Q.25 An AC current is given by $i = 100 \sin 100\pi t$ A. It will achieve a value of 50 A at:

Ans ✗ 1. 1/900 s

✗ 2. 1/100 s

✓ 3. 1/600 s

✗ 4. 1/300 s

Question ID : 3228779978

Status : Answered

Chosen Option : 3

Q.26 Voltmeter calibration can be done with the help of a/an:

Ans ✓ 1. Potentiometer

✗ 2. Frequency meter

✗ 3. CRO

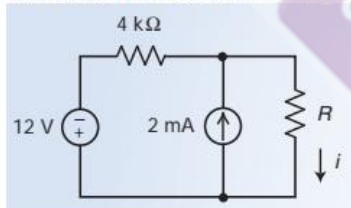
✗ 4. Ammeter

Question ID : 32287710022

Status : Answered

Chosen Option : 1

Q.27 What is the relation between i and R in the following circuit?



Ans ✗ 1. $i = \frac{2}{4000+R}$

✗ 2. $i = \frac{2}{R}$

✗ 3. $i = \frac{12}{4000+R}$

✓ 4. $i = \frac{2}{2000+R}$

Question ID : 3228779995

Status : Answered

Chosen Option : 1

Q.28 The polar form of a vector is $20 \angle 60^\circ$. What is the rectangular form of that vector?

Ans ✗ 1. $15+j17.33$

✓ 2. $10+j17.33$

✗ 3. $10+j10.33$

✗ 4. $15+j15.33$

Question ID : 32287710011

Status : Answered

Chosen Option : 2

Q.29 Chances of corona are maximum during:

- Ans ☒ 1. Summer heat
☒ 2. Humid weather
☒ 3. Winter
☒ 4. Dry weather

Question ID : 32287710041

Status : Answered

Chosen Option : 2

Q.30 Find the currents i_1 and i_2 whose relations in an electric circuit are given as:

$$4i_1 - 3i_2 = 1; 3i_1 - 5i_2 = 2$$

- Ans ☒ 1. $i_1 = \frac{-5}{11}$ and $i_2 = \frac{-1}{11}$
☒ 2. $i_1 = \frac{1}{11}$ and $i_2 = \frac{5}{11}$
☒ 3. $i_1 = \frac{-1}{11}$ and $i_2 = \frac{-5}{11}$
☒ 4. $i_1 = \frac{5}{11}$ and $i_2 = \frac{1}{11}$

Question ID : 3228779991

Status : Answered

Chosen Option : 3

Q.31 The slope of the graphical representation of Ohm's law represents which of the following components?

- Ans ☒ 1. Resistance
☒ 2. Impedance
☒ 3. Conductance
☒ 4. Inductive reactance

Question ID : 32287710007

Status : Answered

Chosen Option : 1

Q.32 A relay in a power system is a/an:

- Ans ☒ 1.
Automatic device that senses an abnormal condition in an electrical circuit and closes its contacts
☒ 2.
Manual device that senses an abnormal condition in an electrical circuit and closes its contacts
☒ 3.
Automatic device that senses an abnormal condition in an electrical circuit and opens its contacts
☒ 4.
Automatic device that senses an abnormal condition in an electronic circuit and opens its contacts

Question ID : 32287710039

Status : Answered

Chosen Option : 1

Q.33 The intrinsic semiconductor has which of the below capabilities at room temperature?

- Ans ☒ 1. Insulation
☒ 2. Zero current conduction
☒ 3. High current conduction
☒ 4. Little current conduction

Question ID : 3228779941

Status : Not Attempted and Marked For Review

Chosen Option : --

Q.34 Choose the WRONG statement from the below with regard to the 3- ϕ induction motor.

Blocked rotor test on a 3- ϕ induction motor helps to find:

- Ans ☒ 1. Short-circuit current with normal voltage
☒ 2. Motor resistance as referred to the stator
☒ 3. Short-circuit power factor
☒ 4. Fixed losses

Question ID : 3228779971

Status : Not Attempted and Marked For Review

Chosen Option : --

Q.35 The minority carriers of an NPN transistor are:

- Ans ☒ 1. Donor ions
☒ 2. Free electrons

Question ID : 32287710059

Status : Answered

Chosen Option : 3

- ✓ 3. Holes
- ✗ 4. Acceptor ions

Q.36 A mass of 150 g experiences a force of 100 N. Find the energy or work expended if the mass moves 10 cm.

- Ans ✗ 1. 1000 J
- ✗ 2. 1 J
- ✓ 3. 10 J
- ✗ 4. 100 J

Question ID : 3228779999
Status : Answered
Chosen Option : 3

Q.37 Which type of impurity is to be added to a pure semiconductor to get an n-type semiconductor?

- Ans ✓ 1. Pentavalent impurity
- ✗ 2. Gallium
- ✗ 3. Indium
- ✗ 4. Trivalent impurity

Question ID : 3228779942
Status : Answered
Chosen Option : 1

Q.38 Two alternators are running under parallel conditions. If the excitation of the one of the alternators is changed, then it will operate at:

- Ans ✗ 1. Changed frequency
- ✓ 2. Changed power factor
- ✗ 3. Reduced speed
- ✗ 4. Changed load demand

Question ID : 32287710036
Status : Answered
Chosen Option : 2

Q.39 The direction of rotation of a hysteresis motor is determined by the:

- Ans ✗ 1. Retentivity of the rotor material
- ✓ 2. Position of shaded pole with respect to the main pole
- ✗ 3. Permeability of the rotor material
- ✗ 4. Amount of hysteresis loss

Question ID : 3228779969
Status : Not Attempted and Marked For Review
Chosen Option : --

Q.40 Keeping its excitation constant, if steam supply of an alternator running in parallel with another identical alternator is increased, then:

- Ans ✗ 1. Its power factor would be decreased
- ✓ 2. It will supply greater portion of the load
- ✗ 3. It would over-run the other alternator
- ✗ 4. Its rotor will fall back in phase with respect to the other machine

Question ID : 3228779965
Status : Answered
Chosen Option : 1

Q.41 A starter is necessary to start a DC motor because:

- Ans ✓ 1. It helps in restricting the initial high armature current that is present on account of starting back emf being zero
- ✗ 2. DC motors do not have starting torque
- ✗ 3. At start, the value of back emf is zero
- ✗ 4. Initially, there is a high starting torque

Question ID : 32287710025
Status : Answered
Chosen Option : 1

Q.42 Which traction system employs the metadyne control method?

- Ans ✗ 1. Urban
- ✗ 2. Suburban
- ✓ 3. Underground

Question ID : 32287710049
Status : Not Attempted and Marked For Review
Chosen Option : --

4. Rural

Q.43 Generators for peak load plants are usually designed for maximum efficiency at:

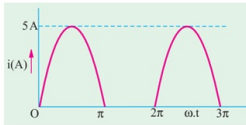
- Ans
- ☒ 1. Full load
 - ☒ 2. 25 to 50% full load
 - ☒ 3. 50 to 75% full load
 - ☒ 4. 25% overload

Question ID : 3228779961

Status : Answered

Chosen Option : 2

Q.44 The current through a resistor has a waveform as shown in the following figure. The reading shown by a moving coil ammeter will be:



- Ans
- ☒ 1. $2.5/\sqrt{2}$ A
 - ☒ 2. 5 A
 - ☒ 3. $5\sqrt{2}$ A
 - ☒ 4. $5/\pi$ A

Question ID : 3228779982

Status : Answered

Chosen Option : 4

Q.45 The percentage differential protection of a transformer protects the transformer against:

- Ans
- ☒ 1. Magnetising currents inrush
 - ☒ 2. External faults
 - ☒ 3. Overloading
 - ☒ 4. Internal faults

Question ID : 32287710045

Status : Answered

Chosen Option : 1

Q.46 What is the binary equivalent of decimal number 26?

- Ans
- ☒ 1. 11111
 - ☒ 2. 11001
 - ☒ 3. 11010
 - ☒ 4. 11110

Question ID : 32287710057

Status : Answered

Chosen Option : 3

Q.47 For a diesel generating station, the useful life is expected to be around:

- Ans
- ☒ 1. 15 to 20 years
 - ☒ 2. 20 to 50 years
 - ☒ 3. 75 to 100 years
 - ☒ 4. 50 to 75 years

Question ID : 3228779960

Status : Answered

Chosen Option : 1

Q.48 A sine wave has a frequency of 60 Hz. Its angular frequency is:

- Ans
- ☒ 1. 120π rad/s
 - ☒ 2. 30π rad/s
 - ☒ 3. 60π rad/s
 - ☒ 4. $120/\pi$ rad/s

Question ID : 3228779979

Status : Answered

Chosen Option : 1

Q.49 "Whenever flux linked with a conductor (coil) changes, an emf is induced in it." This statement is associated with which law?

- Ans
- ☒ 1. Faraday's First Law
 - ☒ 2. Lenz's law
 - ☒ 3. Ohm's law

Question ID : 32287710005

Status : Answered

Chosen Option : 4

✗ 4. Faraday's Second Law

Q.50 Absolute permeability of a free space is:

- Ans **✓ 1.** $\mu_o = 4\pi \times 10^{-7}$ H/m
✗ 2. $\mu_o = 4\pi \times 10^{-6}$ H/m
✗ 3. $\mu_o = 4\pi \times 10^{-7}$ H/sq-m
✗ 4. $\mu_o = 4\pi \times 10^{-6}$ H/sq-m

Question ID : 3228779985

Status : Answered

Chosen Option : 1

Q.51 A 60 W bulb in series with a room heater is connected across the mains. What will happen if the 60 W bulb is replaced by a 100 W bulb?

- Ans **✓ 1.** The heater output will increase.
✗ 2. The heater output will slightly decrease.
✗ 3. The heater output will be the same.
✗ 4. The heater output will decrease.

Question ID : 32287710053

Status : Not Attempted and Marked For Review

Chosen Option : --

Q.52 The octal equivalent of $(177)_{10}$ is:

- Ans **✗ 1.** $(231)_8$
✗ 2. $(251)_8$
✓ 3. $(261)_8$
✗ 4. $(162)_8$

Question ID : 3228779947

Status : Answered

Chosen Option : 3

Q.53 How can we increase the frequency of the voltage generated by a generator?

- Ans **✓ 1.** Adjusting the governor
✗ 2. Using reactors
✗ 3. Increasing the load
✗ 4. Reducing the terminal voltage

Question ID : 32287710047

Status : Answered

Chosen Option : 1

Q.54 A 4 pole 50 Hz induction motor has a slip of 0.5. What is the value of rotor induced voltage frequency?

- Ans **✗ 1.** 100 Hz
✓ 2. 25 Hz
✗ 3. 125 Hz
✗ 4. 50 Hz

Question ID : 32287710027

Status : Answered

Chosen Option : 2

Q.55 Which of the following types of measuring instrument is used only for AC system?

- Ans **✗ 1.** Electrodynamic type
✗ 2. Attraction type
✗ 3. Repulsion type
✓ 4. Shaded-pole type

Question ID : 3228779977

Status : Answered

Chosen Option : 3

Q.56 To minimise the loading effect of circuit under test, the input impedance of the device must:

- Ans **✓ 1.** Be very high
✗ 2. Be capacitive
✗ 3. Be very low
✗ 4.

Question ID : 32287710023

Status : Marked For Review

Chosen Option : 1

Match with the input impedance of the circuit

Q.57 The load characteristics of rolling mill:

Ans ☒ 1. are constant

☒ 2. vary

☒ 3.

fluctuate widely within short intervals of time

☒ 4.

fluctuate widely within long intervals of time

Question ID : 3228779948

Status : Answered

Chosen Option : 1

Q.58 Which of the below methods does NOT produce damping torque in measuring instruments?

Ans ☒ 1. Eddy currents

☒ 2. Fluid friction

☒ 3. Spring control

☒ 4. Air frictions

Question ID : 3228779976

Status : Answered

Chosen Option : 3

Q.59 The ratio of maximum value/rms value is known as:

Ans ☒ 1. Diversity factor

☒ 2. Form factor

☒ 3. Crest factor

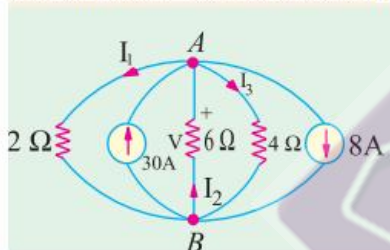
☒ 4. Average factor

Question ID : 3228779984

Status : Answered

Chosen Option : 3

Q.60 Determine the value of current I_1 in the following circuit.



Ans ☒ 1. 6 A

☒ 2. -4 A

☒ 3. 12 A

☒ 4. -6 A

Question ID : 3228779992

Status : Not Attempted and Marked For Review

Chosen Option : --

Q.61 What is the equivalent of one kilowatt hour?

Ans ☒ 1. 36×10^5 Ergs

☒ 2. 36×10^5 Watts

☒ 3. 36×10^5 Joules

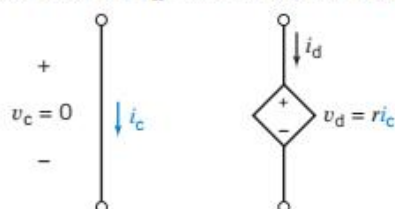
☒ 4. 36×10^5 BTU

Question ID : 32287710055

Status : Answered

Chosen Option : 3

Q.62 The source V_d in the below circuit is:



Question ID : 32287710004

Status : Answered

Chosen Option : 1

- Ans
- ☒ 1. Voltage-Controlled Current Source
 - ☒ 2. Current-Controlled Current Source
 - ☒ 3. Current-Controlled Voltage Source
 - ☒ 4. Voltage-Controlled Voltage Source

Q.63 Sometimes the wheels of rotating machinery, under the influence of fluorescent lamps, appear to be stationary. This is due to:

- Ans
- ☒ 1. Luminescence effect
 - ☒ 2. Fluctuations
 - ☒ 3. Stroboscopic effect
 - ☒ 4. Low power factor

Question ID : 3228779956

Status : Answered

Chosen Option : 3

Q.64 A ground wire is used to:

- Ans
- ☒ 1. Give good regulation
 - ☒ 2. Give support to the tower
 - ☒ 3. Connect a circuit conductor or other device to an earth-plate
 - ☒ 4. Avoid overloading

Question ID : 3228779963

Status : Answered

Chosen Option : 3

Q.65 Inverse square law and Lambert's cosine law are laws pertaining to which of the following parameters?

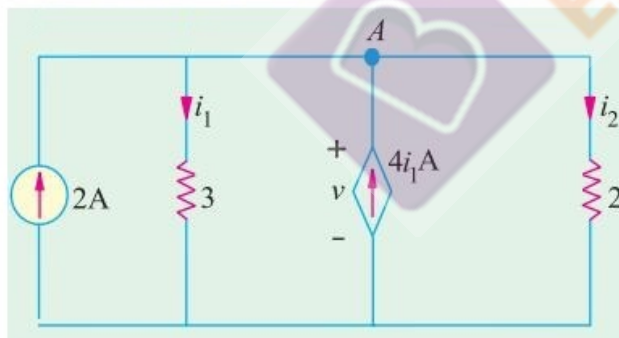
- Ans
- ☒ 1. Electricity
 - ☒ 2. Resistance
 - ☒ 3. Illumination
 - ☒ 4. Magnetism

Question ID : 32287710050

Status : Answered

Chosen Option : 3

Q.66 Find the value of the current i_1 in the following circuit.



- Ans
- ☒ 1. $\frac{3}{4}$ A
 - ☒ 2. $-\frac{4}{3}$ A
 - ☒ 3. 2 A
 - ☒ 4. $\frac{4}{3}$ A

Question ID : 3228779993

Status : Answered

Chosen Option : 2

Q.67 If sag on a transmission is increased, the tension:

- Ans
- ☒ 1. Decreases
 - ☒ 2. Increases
 - ☒ 3. Remains unaffected
 - ☒ 4.

Question ID : 32287710043

Status : Answered

Chosen Option : 1

Sometimes increases and sometimes decreases

Q.68 The approximate torque angle corresponding to the pull-out torque in a practical synchronous motor can be:

- Ans
- ☒ 1. 45°
 - ☒ 2. 0°
 - ☒ 3. 75°
 - ☒ 4. 30°

Question ID : 32287710033

Status : Answered

Chosen Option : 1

Q.69 Which gas can be filled in GLS lamps?

- Ans
- ☒ 1. Carbon dioxide
 - ☒ 2. Oxygen
 - ☒ 3. Xenon
 - ☒ 4. Any inert gas

Question ID : 3228779954

Status : Not Attempted and Marked For Review

Chosen Option : --

Q.70 The primary function of a capacitor across the supply to the fluorescent tube is to:

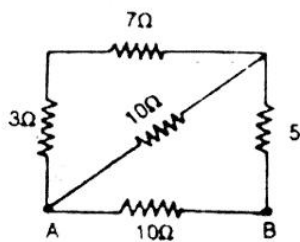
- Ans
- ☒ 1. Improve the supply power factor
 - ☒ 2. Reduce the starting current
 - ☒ 3. Stabilise the arc
 - ☒ 4. Reduce the noise

Question ID : 3228779957

Status : Answered

Chosen Option : 1

Q.71



In the circuit shown above, the equivalent resistance across A and B will be:

- Ans
- ☒ 1. 5 ohms
 - ☒ 2. 15 ohms
 - ☒ 3. 10 ohms
 - ☒ 4. 1 ohms

Question ID : 32287710013

Status : Answered

Chosen Option : 1

Q.72 Which one of the below is a paramagnetic material?

- Ans
- ☒ 1. Nickel
 - ☒ 2. Soft iron
 - ☒ 3. Magnesium
 - ☒ 4. Hard iron

Question ID : 32287710015

Status : Answered

Chosen Option : 3

Q.73 A universal motor is the one that:

- Ans
- ☒ 1. Is available universally
 - ☒ 2. Can be marketed internationally
 - ☒ 3. Runs at dangerously high speed on no-load
 - ☒ 4. Can be operated either on DC or AC supply

Question ID : 3228779968

Status : Answered

Chosen Option : 4

Q.74 Which of the following factors should be identical for two alternators running in parallel?

- Ans
- ☒ 1. Power factor

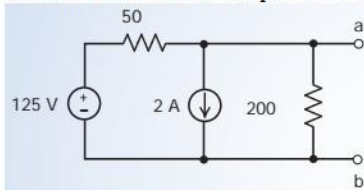
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Status : Answered

- ☒ 2. Power
- ☒ 3. Reactive power
- ☒ 4. Phase sequence

Chosen Option : 4

Q.75 Determine the Thevenin equivalent circuit values for the given circuit.



Question ID : 3228779996

Status : Answered

Chosen Option : 2

- Ans
- ☒ 1. $V_{th} = 20 \text{ V}$ and $R_{th} = 20 \Omega$
 - ☒ 2. $V_{th} = 20 \text{ V}$ and $R_{th} = 40 \Omega$
 - ☒ 3. $V_{th} = 10 \text{ V}$ and $R_{th} = 40 \Omega$
 - ☒ 4. $V_{th} = 10 \text{ V}$ and $R_{th} = 20 \Omega$

Q.76 Pin type insulators are used for transmission lines:

- Ans
- ☒ 1. Up to 33 kV
 - ☒ 2. Above 33 kV
 - ☒ 3. Below 33 kV
 - ☒ 4. of 400 kV and above

Question ID : 32287710044

Status : Answered

Chosen Option : 1

Q.77 The flux that follows a path not intended for it is known as:

- Ans
- ☒ 1. Leakage flux
 - ☒ 2. Main flux
 - ☒ 3. Total flux
 - ☒ 4. Peak flux

Question ID : 3228779987

Status : Answered

Chosen Option : 1

Q.78 What is the frequency of a single phase traction system?

- Ans
- ☒ 1. 450 Hz
 - ☒ 2. 16.67 Hz
 - ☒ 3. 452/5 Hz
 - ☒ 4. 50 Hz

Question ID : 32287710052

Status : Answered

Chosen Option : 2

Q.79 The rms value of a half-wave rectified current is 10 A. Its value for full-wave rectification would be:

- Ans
- ☒ 1. 20 A
 - ☒ 2. $20/\pi \text{ A}$
 - ☒ 3. $40/\pi \text{ A}$
 - ☒ 4. $10\sqrt{2} \text{ A}$

Question ID : 3228779980

Status : Answered

Chosen Option : 4

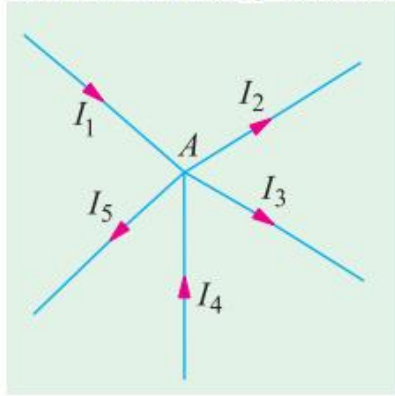
Q.80

Question ID : 3228779990

Status : Answered

Chosen Option : 1

Find the value of I_4 in the following node.



- Ans ☒ 1. $I_2 + I_3 + I_5 - I_1$
☒ 2. $I_1 + I_2 + I_3 + I_5$
☒ 3. $I_1 - I_2 - I_3 - I_5$
☒ 4. $I_2 + I_3 + I_5$

Q.81 Ohm's law is applicable for:

- Ans ☒ 1. Non linear diode
☒ 2. Metal conductor
☒ 3. Non metallic conductor
☒ 4. Zener diode

Question ID : 32287710008

Status : Answered

Chosen Option : 2

Q.82 In case of induction heating, the depth up to which the current will penetrate is proportional to:

- Ans ☒ 1. Frequency
☒ 2. (Frequency)²
☒ 3. $1/\sqrt{\text{Frequency}}$
☒ 4. $1/\text{Frequency}$

Question ID : 32287710046

Status : Answered

Chosen Option : 4

Q.83 The SI base unit of thermodynamic temperature is:

- Ans ☒ 1. Candela
☒ 2. Volt
☒ 3. Ampere
☒ 4. Kelvin

Question ID : 3228779998

Status : Answered

Chosen Option : 4

Q.84 The main part(s) of a CRO is/are:

- Ans ☒ 1. Screen
☒ 2. CRT
☒ 3. Horizontal plates
☒ 4. Vertical plates

Question ID : 32287710021

Status : Answered

Chosen Option : 2

Q.85 In illumination, what is lamp efficiency represented in:

- Ans ☒ 1. Lumen-watt
☒ 2. Total flux in lumen / 2π
☒ 3. Lumens / watt
☒ 4. Total flux in lumen / 4π

Question ID : 32287710048

Status : Answered

Chosen Option : 3

Q.86 Which of the below is an example of short time intermittent loads?

- Ans ☒ 1. Cranes
☒ 2. Metal cutting lathes
☒ 3. Rolling mills
☒ 4. Centrifugal pumps

Question ID : 3228779950

Status : Answered

Chosen Option : 1

Q.87 A combinational circuit is the one in which the output depends on the:

- Ans ☒ 1. Input combination at that time
☒ 2. Present and the previous output
☒ 3. Present input combination and the previous output
☒ 4. Present input combination and the previous input combination

Question ID : 32287710058

Status : Answered

Chosen Option : 1

Q.88 Find the current in an element when the charge entering the element is $q(t) = 10e^{-t}$ C.

- Ans ☒ 1. $10 e^t$ A
☒ 2. $-10e^{-t}$ A
☒ 3. 10 A
☒ 4. -10 A

Question ID : 3228779997

Status : Answered

Chosen Option : 2

Q.89 A pilot exciter is provided on generators for which of the following reasons?

- Ans ☒ 1. To excite the poles of the main exciter
☒ 2. To provide requisite starting torque to the generator
☒ 3. To cancel the ripple frequency
☒ 4. To provide requisite starting torque to the main exciter

Question ID : 3228779959

Status : Answered

Chosen Option : 4

Q.90 Which is the main property of a heating element?

- Ans ☒ 1. Specific resistance of the element should be very high.
☒ 2. Melting point of the material should be low.
☒ 3. Specific resistance of the element should be very low.
☒ 4. The material that comprises the heating element should be oxidised.

Question ID : 32287710051

Status : Answered

Chosen Option : 1

Q.91 Reciprocating pumps and compressors are characterised as:

- Ans ☒ 1. Pulsating loads
☒ 2. Short time loads
☒ 3. Continuous loads
☒ 4. Impact loads

Question ID : 3228779949

Status : Not Attempted and Marked For Review

Chosen Option : --

Q.92 In an electrical measuring instrument, the controlling torque is also known as:

- Ans ☒ 1. Damping torque

Question ID : 3228779975

Status : Answered

Chosen Option : 1

- ☒ 2. Operating torque
- ☒ 3. Restoring torque
- ☒ 4. Deflecting torque

Q.93 Which of the following is NOT a method of estimating depreciation charges?

- Ans
- ☒ 1. Straight line method
 - ☒ 2. Halsey's 50–50 formula
 - ☒ 3. Diminishing value method
 - ☒ 4. Sinking fund method

Question ID : 3228779958

Status : Answered

Chosen Option : 2

Q.94 Insulators are made of which material?

- Ans
- ☒ 1. Porcelain
 - ☒ 2. Rubber
 - ☒ 3. Glass
 - ☒ 4. Styrofoam

Question ID : 32287710038

Status : Answered

Chosen Option : 1

Q.95 What will be the magnetic potential difference across a 4-cm-long air gap in a magnetic field of 400 AT/m?

- Ans
- ☒ 1. 20 AT
 - ☒ 2. 25 AT
 - ☒ 3. 18 AT
 - ☒ 4. 16 AT

Question ID : 32287710016

Status : Answered

Chosen Option : 4

Q.96 In a 4 pole induction motor, the rotor speed is 1400 rpm. What will be the air gap field speed?

- Ans
- ☒ 1. 1400 rpm
 - ☒ 2. 1700 rpm
 - ☒ 3. 1600 rpm
 - ☒ 4. 1500 rpm

Question ID : 32287710029

Status : Answered

Chosen Option : 4

Q.97 Bundle conductors are used to:

- Ans
- ☒ 1. Reduce line capacitance with respect to ground
 - ☒ 2. Reduce corona loss
 - ☒ 3. Reduce total weight of the line
 - ☒ 4. Reduce regulation

Question ID : 32287710042

Status : Answered

Chosen Option : 2

Q.98 A diode will work satisfactorily in:

- Ans
- ☒ 1. First and third quadrant only
 - ☒ 2. First and forth quadrant only
 - ☒ 3. Third quadrant only
 - ☒ 4. First quadrant only

Question ID : 32287710056

Status : Answered

Chosen Option : 1

Q.99 Hay bridge is used to measure an inductance of:

- Ans
- ☒ 1. High Q value
 - ☒ 2. Very large Q value

Question ID : 32287710024

Status : Answered

Chosen Option : 1

- ☒ 3. Low Q value
- ☒ 4. Medium Q value

Q.10
0 When a pure semiconductor is heated, its resistance:

- Ans
- ☒ 1. Cannot be determined
 - ☒ 2. remains the same
 - ☒ 3. goes down
 - ☒ 4. goes up

Question ID : 3228779945

Status : Answered

Chosen Option : 3

Q.10
1 The ratio of rms value/average value is known as:

- Ans
- ☒ 1. Form factor
 - ☒ 2. Average factor
 - ☒ 3. Peak factor
 - ☒ 4. Diversity factor

Question ID : 3228779983

Status : Answered

Chosen Option : 1

Q.10
2 Reluctance of a magnetic circuit is given by:

- Ans
- ☒ 1. $\frac{\mu_0 \mu_r A}{l}$
 - ☒ 2. $\frac{A}{\mu_0 \mu_r l}$
 - ☒ 3. $\frac{l^2}{\mu_0 \mu_r A}$
 - ☒ 4. $\frac{l}{\mu_0 \mu_r A}$

Question ID : 3228779986

Status : Answered

Chosen Option : 4

Q.10
3 Which of the following types of errors are dynamic errors?

- Ans
- ☒ 1. Human errors
 - ☒ 2. Observational errors
 - ☒ 3. Instrument errors caused due to slow response of instruments
 - ☒ 4. Environmental errors

Question ID : 32287710019

Status : Answered

Chosen Option : 4

Q.10
4 The connected load of a domestic consumer is usually around:

- Ans
- ☒ 1. 80 kW
 - ☒ 2. 5 kW
 - ☒ 3. 120 kW
 - ☒ 4. 40 kW

Question ID : 3228779962

Status : Answered

Chosen Option : 2

Q.10
5 In an alternator, if the winding is short-pitched by 60 electrical degrees, its pitch factor will be:

- Ans
- ☒ 1. 1
 - ☒ 2. 0.28
 - ☒ 3. 0.75
 - ☒ 4. 0.866

Question ID : 32287710035

Status : Answered

Chosen Option : 4

Q.10
6 The voltage and current in an element are given as $v(t) = 12 e^{-8t}$ V and $i(t) = 5 e^{-8t}$ A for $t \geq 0$. Find the power.

- Ans
- ☒ 1. $10 e^{-16t}$ W

Question ID : 32287710001

Status : Answered

Chosen Option : 2

✓ 2. $60 e^{-16t}$ W

✗ 3. $12/5 e^{-16t}$ W

✗ 4. $60 e^{-8t}$ W

Q.10
7 The load sharing between two steam-driven alternators operating in parallel may be adjusted by varying the:

- Ans
- ✗ 1. Power factors of the alternators
 - ✗ 2. Field strengths of the alternators
 - ✗ 3. Speed of the alternators
 - ✓ 4. Steam supply to their prime movers

Question ID : 3228779966

Status : Answered

Chosen Option : 4

Q.10
8 During arc welding, as the thickness of the metal to be welded increases:

- Ans
- ✗ 1. Current should increase, voltage should decrease
 - ✓ 2. Current should increase, with voltage remaining the same
 - ✗ 3. Current should decrease, voltage should increase
 - ✗ 4. Voltage should increase, with current remaining the same

Question ID : 3228779952

Status : Answered

Chosen Option : 2

Q.10
9 Which of the following materials is extensively used in "electric heating"?

- Ans
- ✗ 1. Copper
 - ✗ 2. Silver
 - ✓ 3. Nichrome
 - ✗ 4. Gold

Question ID : 32287710006

Status : Answered

Chosen Option : 3

Q.11
0 When the load on a synchronous motor running with normal excitation is increased, armature current drawn by it increases because:

- Ans
- ✗ 1. Motor speed is reduced
 - ✗ 2. Power factor is decreased
 - ✗ 3. Back e.m.f. E_b becomes less than applied voltage V
 - ✓ 4. Net resultant voltage E_R in armature is increased

Question ID : 3228779967

Status : Answered

Chosen Option : 4

Q.11
1 Which statement about Curie point is correct?

- Ans
- ✓ 1. It is a temperature above which certain materials lose their permanent magnetic properties.
 - ✗ 2. It is a pressure above which certain materials lose their permanent magnetic properties.
 - ✗ 3. It is a pressure below which certain materials lose their permanent magnetic properties.
 - ✗ 4. It is a temperature below which certain materials lose their permanent magnetic properties.

Question ID : 32287710014

Status : Answered

Chosen Option : 1

Q.11
2 Which of the following materials has good conductivity?

- Ans
- ✗ 1. Aluminium

Question ID : 32287710003

Status : Answered

Chosen Option : 4

- ☒ 2. Carbon
- ☒ 3. Silicon
- ☒ 4. Copper

Q.11
3 Which of the below statements is true?

Ans ☒ 1.

Super mesh is defined as the combination of two meshes that have voltage source on their boundary.

☒ 2.

Any two terminals of a network can be replaced by an equivalent voltage and equivalent series resistance in Norton theorem

☒ 3.

Source transformation of Thevenin theorem is known as Norton theorem

☒ 4.

In Thevenin theorem, voltage source is replaced by open circuit and current source is replaced by short circuit

Question ID : 32287710009

Status : Answered

Chosen Option : 3

Q.11
4 For constant speed operation, the most suitable motor used is:

Ans ☒ 1. Synchronous motor

☒ 2. DC series motor

☒ 3. Separately excited DC motor

☒ 4. DC shunt motor

Question ID : 32287710028

Status : Answered

Chosen Option : 4

Q.11
5 The combined inductance of two coils connected in series is 0.6 H or 0.1 H, depending on the relative directions of the currents in the coils. If one of the coils, when isolated, has a self-inductance of 0.2 H, calculate mutual inductance.

Ans ☒ 1. 0.01 H

☒ 2. 0.25 H

☒ 3. 0.2 H

☒ 4. 0.125 H

Question ID : 3228779988

Status : Not Attempted and Marked For Review

Chosen Option : --

Q.11
6 A synchronous condenser is usually a/an:

Ans ☒ 1. Induction motor

☒ 2. Over-excited synchronous motor

☒ 3. DC motor

☒ 4. Under-excited synchronous motor

Question ID : 32287710031

Status : Answered

Chosen Option : 2

Q.11
7 The leakage current in a pn junction is of the order of:

Ans ☒ 1. Kiloampere

☒ 2. Milliampere

☒ 3. Ampere

☒ 4. Microampere

Question ID : 3228779946

Status : Answered

Chosen Option : 4

Q.11
8 If, in a 3- ϕ alternator, a field current of 50 A produces a full-load armature current of 200 A on short-circuit and 1730 V on open circuit, then its synchronous impedance is ____ Ω .

Ans ☒ 1. 3.46

☒ 2. 8.66

☒ 3. 5

☒ 4. 4

Question ID : 3228779964

Status : Not Attempted and Marked For Review

Chosen Option : --

Q.11
9 In the circle diagram for a 3- ϕ induction motor, the diameter of the circle is determined by:

Ans ☒ 1. Total stator current

Question ID : 3228779970

Status : Answered

- ☒ 2. Rotor current
- ☒ 3. Rotor current referred to stator
- ☒ 4. Exciting current

Chosen Option : 3

Q.12 If w is energy in Joules and t is time in seconds, then the power associated with those quantities is:

- Ans ☒ 1. w/q
- ☒ 2. t/w
- ☒ 3. $\frac{dw}{dt}$
- ☒ 4. w/t

Question ID : 32287710000

Status : Answered

Chosen Option : 3

Section : General English

Comprehension:



Read the following passage and answer the questions given below.

Murlidhar Devidas Amte, better known as Baba Amte, was an Indian social worker and activist. He is known for his work for the empowerment of poor suffering from leprosy. From a child born with a silver spoon, Baba Amte dedicated his life to serve the downtrodden people of the society. He was influenced by the words and philosophy of Mahatma Gandhi and left his successful law practice to join India's struggle for independence. Baba Amte dedicated his life to serving humanity and he moved forward with the motto 'Work Builds; Charity Destroys'.

Amte studied law and earned his LLB degree from Law College in Wardha. He set up a law practice in his native town which soon became successful. He was initiated into the Indian Freedom Movement by Mahatma Gandhi and became his follower. He participated in almost all major movements led by Mahatma Gandhi and organised lawyers to take up defence of the jailed leaders all over India during the Quit India Movement.

Baba Amte, often referred to as the last follower of Mahatma Gandhi, lived and worked following his mentor's life. He led a Spartan life, wearing only Khadi clothes woven in his rehabilitation centre at Anandvan, ate the fruit and vegetables grown in the farms there, and worked towards Gandhi's vision of India, alleviating the sufferings of thousands.

Baba Amte was moved by the plight and social injustice that leprosy patients faced in Indian society. Suffering from a dreadful disease, they were discriminated against and driven out of the society, which often lead to death due to lack of treatment. Baba Amte set out to work against this belief and create awareness for the disease to banish misconceptions. After pursuing a leprosy orientation course at the Calcutta School of Tropical Medicine, Baba Amte started out on his mission along with his wife, two sons and 6 leprosy patients. In 1949, he started working towards building an ashram near Nagpur dedicated towards helping leprosy patients. He called it 'Anandvan' which means the forest of joy. It brought a new hope for the patients of leprosy. From under a tree in 1949, to a 250 acre campus in 1951, the Anandvan ashram now houses two hospitals, a university, an orphanage and even a school for the blind.

SubQuestion No : 1

Q.1 Anandvan near Nagpur is:

Question ID : 32287710065

Ans

✓ 1. a leprosy ashram

✗ 2. Baba Amte's office

✗ 3. an old age home

✗ 4. a beautiful forest

Status : **Answered**

Chosen Option : 1

Comprehension:



Read the following passage and answer the questions given below.

Murlidhar Devidas Amte, better known as Baba Amte, was an Indian social worker and activist. He is known for his work for the empowerment of poor suffering from leprosy. From a child born with a silver spoon, Baba Amte dedicated his life to serve the downtrodden people of the society. He was influenced by the words and philosophy of Mahatma Gandhi and left his successful law practice to join India's struggle for independence. Baba Amte dedicated his life to serving humanity and he moved forward with the motto 'Work Builds; Charity Destroys'.

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SubQuestion No : 2

Q.2 From the reading of the passage, one can make out that it is:

Question ID : 32287710062

Ans

☒ 1. an article.

☒ 2. a fictional piece.

☒ 3. a biographical sketch.

☒ 4. an autobiographical passage.

Status : **Answered**

Chosen Option : **3**

Comprehension:



Read the following passage and answer the questions given below.

Murlidhar Devidas Amte, better known as Baba Amte, was an Indian social worker and activist. He is known for his work for the empowerment of poor suffering from leprosy. From a child born with a silver spoon, Baba Amte dedicated his life to serve the downtrodden people of the society. He was influenced by the words and philosophy of Mahatma Gandhi and left his successful law practice to join India's struggle for independence. Baba Amte dedicated his life to serving humanity and he moved forward with the motto 'Work Builds; Charity Destroys'.

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SubQuestion No : 3

Q.3


Question ID : 32287710064


Match the words with their meaning.


- | | |
|------------|-------------|
| a. plight | 1. expel |
| b. Spartan | 2. troubles |
| c. banish | 3. austere |


Status : **Answered**

Chosen Option : 1

Ans  1. a-2, b-3, c-1

 2. a-2, b-1, c-3

 3. a-1, b-3, c-2

 4. a-3, b-2, c-1

Comprehension:



Read the following passage and answer the questions given below.

Murlidhar Devidas Amte, better known as Baba Amte, was an Indian social worker and activist. He is known for his work for the empowerment of poor suffering from leprosy. From a child born with a silver spoon, Baba Amte dedicated his life to serve the downtrodden people of the society. He was influenced by the words and philosophy of Mahatma Gandhi and left his successful law practice to join India's struggle for independence. Baba Amte dedicated his life to serving humanity and he moved forward with the motto 'Work Builds; Charity Destroys'.

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SubQuestion No : 4

Q.4 Murlidhar Amte is best known:

Question ID : 32287710063

- Ans
- ☒ 1. for his part in the freedom movement.
 - ☒ 2. for his work with the leprosy patients.
 - ☒ 3. as a follower of Mahatma Gandhi.
 - ☒ 4. as a successful lawyer.

Status : **Answered**
Chosen Option : **2**

Comprehension:



Read the following passage and answer the questions given below.

Murlidhar Devidas Amte, better known as Baba Amte, was an Indian social worker and activist. He is known for his work for the empowerment of poor suffering from leprosy. From a child born with a silver spoon, Baba Amte dedicated his life to serve the downtrodden people of the society. He was influenced by the words and philosophy of Mahatma Gandhi and left his successful law practice to join India's struggle for independence. Baba Amte dedicated his life to serving humanity and he moved forward with the motto 'Work Builds; Charity Destroys'.

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SubQuestion No : 5

Q.5 Why did Baba Amte start working with leprosy patients?

Question ID : 32287710066

Ans ☒ 1. He wanted to set up an ashram for leprosy patients.

☒ 2. He was moved by their suffering – physical and mental.

☒ 3. He had stopped his practice of law.

☒ 4. He had trained for working with leprosy patients.

Status : **Answered**
Chosen Option : 2

Q.6 The sentence given below has been divided into four parts, and each part is given as an option. One of the parts contains an error. Select the option that represents the part with the error.

The kidnapped boy / escaped unhurt / and return / home safely.

Ans ☒ 1. escaped unhurt

☒ 2. and return

☒ 3. The kidnapped boy

☒ 4. home safely

Question ID : 32287710076
Status : **Answered**
Chosen Option : 2

Q.7 Choose the correct option to fill in the blank.

Pour the water _____ the jug.

Ans ☒ 1. into

☒ 2. out

☒ 3. before

☒ 4. in

Question ID : 32287710072
Status : **Answered**
Chosen Option : 4

Q.8 Choose the option that is the meaning of the underlined idiom.

The teacher took him to task.

Ans ☒ 1. Scolded him

☒ 2. Appreciated him

☒ 3. Consoled him

☒ 4. Praised him

Question ID : 32287710071
Status : **Not Answered**
Chosen Option : --

Q.9 Choose the option that is the synonym of the given word.

Concise

Ans ☒ 1. Enlarge

☒ 2. Brief

☒ 3. Elaborate

☒ 4. Casual

Question ID : 32287710068
Status : **Answered**
Chosen Option : 2

Q.10 Choose the option that is the correct passive voice of the given sentence.

He offered the seat to the old woman.

Ans ☒ 1. The old woman was offering the seat by him.

☒ 2. The old woman was being offered the seat by him.

☒ 3. The old woman was offered the seat by him.

Question ID : 32287710075
Status : **Answered**
Chosen Option : 2

☒ 4. The old woman is offered the seat by him.

Q.11 Choose the option that is the antonym of the given word.

Cautious

- Ans ☒ 1. Careless
☒ 2. Common
☒ 3. Careful
☒ 4. Crazy

Question ID : 32287710069

Status : Answered

Chosen Option : 1

Q.12 Choose the option that is the synonym of the given word.

Awful

- Ans ☒ 1. Amazing
☒ 2. Pleasant
☒ 3. Terrible
☒ 4. Awesome

Question ID : 32287710067

Status : Answered

Chosen Option : 4

Q.13 Choose the option that is the correct indirect form of the given sentence.

Megha said, "We will watch the movie tomorrow."

- Ans ☒ 1. Megha said that they will watch the movies tomorrow.
☒ 2. Megha said that they would watch the movie tomorrow
☒ 3. Megha said that they would watch the movie the next day.
☒ 4. Megha said that they are going to watch the movie tomorrow.

Question ID : 32287710074

Status : Answered

Chosen Option : 3

Q.14 Choose the option that is the antonym of the given word.

Rigid

- Ans ☒ 1. Aggressive
☒ 2. Strict
☒ 3. Regular
☒ 4. Flexible

Question ID : 32287710070

Status : Answered

Chosen Option : 4

Q.15 Choose the correct option to fill in the blank.

The girl, _____ mother is a pilot, is my friend.

- Ans ☒ 1. whose
☒ 2. which
☒ 3. whom
☒ 4. who

Question ID : 32287710073

Status : Answered

Chosen Option : 1

Section : Reasoning

Q.1

Question ID : 32287710089

Read the following information and answer the question that follows.

Status : **Not Answered**
Chosen Option : --

'P \$ Q' means 'P is the mother of Q';

'P # Q' means 'P is the father of Q';

'P @ Q' means 'P is the daughter of Q';

Now, if A \$ B # C @ D, then which of the following is NOT true?

- Ans
- ☒ 1. B is the wife of D
 - ☐ 2. C is B's daughter
 - ☐ 3. A is the mother-in-law of D
 - ☐ 4. D is the wife of B

Q.2 Arrange the following letters to make a meaningful word and indicate the third letter of the word.
UDKC

- Ans
- ☒ 1. C
 - ☐ 2. D
 - ☐ 3. U
 - ☐ 4. K

Question ID : **32287710091**

Status : **Answered**

Chosen Option : 1

Q.3 Consider the following question and statements and decide which of the statements is sufficient/necessary to answer the question.

Question:

How many players are there between Suresh and Keerthi in a row of players?

Statements:

I. Suresh is 15th from the left in the row.

II. Keerthi is exactly in the middle and there are ten students towards his right.

- Ans
- ☐ 1. Data in statement I alone is sufficient
 - ☒ 2. Data in statement I and II together are necessary
 - ☐ 3. Data in statement II alone is sufficient
 - ☐ 4. Data in both I and II together are not sufficient

Question ID : **32287710086**

Status : **Answered**

Chosen Option : 3

Q.4 Find the missing term in the following series:

2A11, 4D13, 12G17, 48J23, ____

- Ans
- ☐ 1. 240N31
 - ☐ 2. 196M31
 - ☒ 3. 240M31
 - ☐ 4. 246M31

Question ID : **32287710088**

Status : **Answered**

Chosen Option : 3

Q.5 Introducing a man, Karthi said, "His only brother is the father of my daughter's father". How is the man related to Karthi?

- Ans
- ☐ 1. Father
 - ☐ 2. Grandfather
 - ☐ 3. Brother
 - ☒ 4. Uncle

Question ID : **32287710083**

Status : **Answered**

Chosen Option : 1

Q.6 When seen through a mirror, a clock shows 6:30. What is the correct time shown by the clock?

- Ans
- ☐ 1. 6:30
 - ☐ 2. 4:30
 - ☐ 3. 9:30
 - ☒ 4. 5:30

Question ID : **32287710087**

Status : **Answered**

Chosen Option : 1

Q.7

Choose the odd pair from the following options:

- Ans ☒ 1. China : Beijing
☒ 2. Spain : Madrid
☒ 3. Iran : Rial
☒ 4. Japan : Tokyo

Question ID : 32287710080

Status : Answered

Chosen Option : 3

Q.8 The sum of the ages of Varun, Arun and Akbar is 89 years. What was the sum of their ages three years ago?

- Ans ☒ 1. 80 years
☒ 2. 85 years
☒ 3. 86 years
☒ 4. 83 years

Question ID : 32287710090

Status : Answered

Chosen Option : 1

Q.9 Keerthi ranked 17th in a class of thirty-one students. What is his rank from the bottom?

- Ans ☒ 1. 14
☒ 2. 15
☒ 3. 16
☒ 4. 13

Question ID : 32287710079

Status : Answered

Chosen Option : 2

Q.10 If the day after tomorrow is Saturday, what day was it three days before yesterday?

- Ans ☒ 1. Wednesday
☒ 2. Sunday
☒ 3. Monday
☒ 4. Tuesday

Question ID : 32287710082

Status : Answered

Chosen Option : 2

Q.11 Five friends L, M, N, O and P read a newspaper. The one who reads first gives it to N. The one who reads last had taken it from L. P was not the first or last to read it. There were two readers between M and L. Who read the newspaper last?

- Ans ☒ 1. L
☒ 2. O
☒ 3. M
☒ 4. N

Question ID : 32287710085

Status : Answered

Chosen Option : 2

Q.12 In a certain code, 'sil bee pee' means 'lotus are pink', 'pik kee' means 'white flowers' and 'pee nit kee' means 'flowers are fruits'. How is 'white' written in that code?

- Ans ☒ 1. pee
☒ 2. kee
☒ 3. nit
☒ 4. pik

Question ID : 32287710081

Status : Answered

Chosen Option : 3

Q.13 Select the option that is related to the third term in the same way as the second term is related to the first term.

Blend : Mix :: Substitute : ____

- Ans ☒ 1. Replace
☒ 2. Return
☒ 3. Assume
☒ 4. Empty

Question ID : 32287710077

Status : Answered

Chosen Option : 1

Q.14 Identify the odd one out from the following:

- Ans ☒ 1. Wheat
☒ 2. Rice

Question ID : 32287710078

Status : Answered

Chosen Option : 4

- ✓ 3. Cotton
✗ 4. Millet

Q.15 Select the option that is related to the third term in the same way as the second term is related to the first term.

Greenland : Arctic Ocean :: England : _____

- Ans ✗ 1. Pacific Ocean
✗ 2. Arctic Ocean
✓ 3. Atlantic Ocean
✗ 4. Antarctic Ocean

Question ID : 32287710084

Status : Not Answered

Chosen Option : --

Section : Quantitative Aptitude

Q.1 A boat goes 15 km upstream and 21 km downstream in 90 minutes. If the speed of the stream is 4 km/h, what is the speed of the boat in still water in km/h?

- Ans ✗ 1. 20
✗ 2. 18
✗ 3. 16
✓ 4. 24

Question ID : 32287710107

Status : Not Answered

Chosen Option : --

Q.2 What is the sum of the digits of the least numbers which when divided by 12, 15, 16 and 18 leaves remainder 7 in each case and is completely divisible by 11?

- Ans ✗ 1. 17
✗ 2. 18
✗ 3. 15
✓ 4. 16

Question ID : 32287710096

Status : Not Attempted and Marked For Review

Chosen Option : --

Q.3 The average of 41 numbers is 68. Out of these, the average of first 21 numbers is 62 and the average of last 21 numbers is 75. If the middle number is excluded, what is the average of the remaining numbers?

- Ans ✓ 1. 67.475
✗ 2. 65.675
✗ 3. 71.925
✗ 4. 69.225

Question ID : 32287710105

Status : Not Answered

Chosen Option : --

Q.4 A shopkeeper sold an article at a discount of $x\%$ on the marked price and earned a profit of 16%. Had he sold the article at marked price, he would have got 45% profit. What is the value of x ?

- Ans ✗ 1. 29
✗ 2. 25
✓ 3. 20
✗ 4. 24

Question ID : 32287710104

Status : Not Answered

Chosen Option : --

Q.5 Two vessels A and B contain spirit and water in the ratio 5 : 2 and 4 : 3 respectively. Their contents are mixed in the ratio 7 : 5. In 420 mL of this solution, how much water should be added to get a solution of spirit and water in the ratio 11:7?

- Ans ✓ 1. 30 mL
✗ 2. 35 mL
✗ 3. 25 mL
✗ 4. 40 mL

Question ID : 32287710100

Status : Not Answered

Chosen Option : --

Q.6 The unit's digit of $(41)^9 + (56)^{15} - (53)^{22}$ is:

- Ans ✗ 1. 8
✗ 2. 5
✗ 3. 6
✓ 4. 7

Question ID : 32287710093

Status : Not Answered

Chosen Option : --

Q.7 A and B can do a piece of work 18 days and 24 days respectively. Both started the work together but A left after 6 days and C joined B. They together finished the remaining work in 6 days. In how many days C alone can finish that work?

- Ans ☒ 1. 36
☐ 2. 30
☐ 3. 32
☐ 4. 40

Question ID : 32287710108

Status : Not Answered

Chosen Option : --

Q.8 The value of $0.5\overline{7} + 0.6\overline{28} - 0.8\overline{9}$ is equal to:

- Ans ☐ 1. $0.3\overline{16}$
☐ 2. $0.2\overline{53}$
☒ 3. $0.3\overline{06}$
☐ 4. $0.2\overline{83}$

Question ID : 32287710097

Status : Not Answered

Chosen Option : --

Q.9 A sum of ₹ 40,000 is invested for 3 years at 8% interest compounded annually. What is the percentage increase in his income at the end of 3 years correct to two decimal places?

- Ans ☒ 1. 25.97%
☐ 2. 24.75%
☐ 3. 26.32%
☐ 4. 26.85%

Question ID : 32287710109

Status : Not Attempted and Marked For Review

Chosen Option : --

Q.10 If, $\sqrt{52 - 30\sqrt{3}} = a + b\sqrt{3}$, then (a+b) is equal to:

- Ans ☐ 1. 8
☐ 2. -8
☐ 3. 2
☒ 4. -2

Question ID : 32287710111

Status : Not Answered

Chosen Option : --

Q.11 Two pipes A and B can fill an empty tank in 60 minutes and 78 minutes respectively. Both pipes are opened together, but pipe B is closed after 26 minutes. In how many minutes the tank will be filled?

- Ans ☒ 1. 40
☐ 2. 48
☐ 3. 52
☐ 4. 45

Question ID : 32287710110

Status : Not Answered

Chosen Option : --

Q.12 A solid sphere of radius 7 cm is melted to form cones of base radius 2 cm and height 5 cm. How many such cones can be formed?

- Ans ☐ 1. 205
☐ 2. 206
☒ 3. 68
☐ 4. 69

Question ID : 32287710102

Status : Not Answered

Chosen Option : --

Q.13 The value of $\frac{(3.4)^2 + (8.4)^2 - (1.8)^2 + 3.4 \times 8.4 \times 5.4}{(34)^2 + (84)^2 + (18)^2 - 34 \times 84 + 84 \times 18 + 18 \times 34}$ is equal to:

- Ans ☐ 1. 0.01
☐ 2. 0.0001
☒ 3. 0.1
☐ 4. 0.001

Question ID : 32287710092

Status : Not Answered

Chosen Option : --

Q.14 In a test, out of 275 students, 64% passed in English and 60% passed in Hindi. How many students passed in both subjects, if 28% failed in both subjects?

- Ans ☒ 1. 143
☐ 2. 136

Question ID : 32287710103

Status : Not Answered

Chosen Option : --

- ☒ 3. 138
- ☒ 4. 142

Q.15 A sum of money is divided among A, B, C and D in the proportion of $\frac{2}{3} : \frac{3}{4} : \frac{4}{5} : \frac{5}{6}$. If C gets ₹ 750 more than B, then what is the share of D?

- Ans ☒ 1. ₹ 12,000
- ☒ 2. ₹ 10,000
- ☒ 3. ₹ 12,500
- ☒ 4. ₹ 13,000

Question ID : 32287710098

Status : Not Answered

Chosen Option : --

Q.16 What is the sum of the mean proportional between 2.8 and 17.5 and the third proportional to 8 and 12?

- Ans ☒ 1. 24
- ☒ 2. 28
- ☒ 3. 25
- ☒ 4. 20

Question ID : 32287710099

Status : Not Answered

Chosen Option : --

Q.17 The sides of a triangle are 20 cm, 48 cm and 52 cm. At each vertex of the triangle, circles of radius 7 cm are drawn. What is the area of the triangle in cm^2 , excluding the portion enclosed by the circles? ($\pi = \frac{22}{7}$)

- Ans ☒ 1. 326
- ☒ 2. 386
- ☒ 3. 368
- ☒ 4. 403

Question ID : 32287710101

Status : Not Answered

Chosen Option : --

Q.18 The HCF and LCM of two numbers are 15 and 420 respectively. If the sum of the numbers is 165, what is the sum of their reciprocals?

- Ans ☒ 1. $\frac{2}{105}$
- ☒ 2. $\frac{5}{28}$
- ☒ 3. $\frac{11}{420}$
- ☒ 4. $\frac{3}{140}$

Question ID : 32287710095

Status : Not Answered

Chosen Option : --

Q.19 The value of $2^2 - 3^2 + 4^2 - 5^2 + 6^2 - 7^2 + \dots + 18^2 - 19^2$ is:

- Ans ☒ 1. -184
- ☒ 2. -189
- ☒ 3. -193
- ☒ 4. -197

Question ID : 32287710094

Status : Not Answered

Chosen Option : --

Q.20 If a train runs with the speed of 65 km/h, it reaches its destination late by 20 minutes. But, if it speed is 75 km/h, it is late by only 2 minutes. The correct time for the train to cover its journey is:

- Ans ☒ 1. 120 minutes
- ☒ 2. 125 minutes
- ☒ 3. 115 minutes
- ☒ 4. 130 minutes

Question ID : 32287710106

Status : Not Answered

Chosen Option : --