UPPCL JE

Uttar Pradesh
Power Corporation Limited

Participant ID:	
Participant Name:	
Test Center Name:	iON Digital Zone IDZ Greater Noida
Test Date:	27/08/2018
Test Time:	2:00 PM - 5:00 PM
Subject:	JUNIOR ENGINEER ELECTRICAL

Section : **Domain**

Q.1 The dielectric strength of the transformer oil should be _____.

Ans ✗ 1. 5 kV

✗ 2. 132 kV

✗ 3. 100 V

✓ 4. 30 kV

Question ID : **6044815224**

Q.2 The critical temperature at which high ferromagnetic materials lose their magnetism is called _____.

Ans ✓ 1. Curie point

✗ 2. Hysteresis

✗ 3. Transition temperature

✗ 4. Standard temperature

Question ID : **6044815246**

Q.3 The rating of a battery is expressed in _____.

Ans ✓ 1. ampere-hours

✗ 2. watt-hours

✗ 3. amperes

✗ 4. watts

Question ID : **6044815199**

Q.4 During capacitor charging, the voltage actually rises to _____ per cent of its _____ value.

Ans ✗ 1. 63.2, initial

✓ 2. 63.2, final

✗ 3. 37, initial

✗ 4. 37, final

Question ID : **6044815278**

Q.5 The ampere-hour efficiency of lead-acid batteries is usually between _____.

Ans ✓ 1. 90 - 95%

✗ 2. 55 - 60%

✗ 3. 0 - 20%

✗ 4. 30 - 35%

Question ID : **6044815189**

Q.6 The absolute permittivity of free space is given by _____.

Ans ✗ 1. 8.854×10^{-11} F/m

Question ID : **6044815268**

✗ 2. 8.854×10^{-09} F/m

✓ 3. 8.854×10^{-12} F/m

✗ 4. 8.854×10^{-10} F/m

Q.7 The delta in a three-phase system is formed by connecting _____ and the connections are continued to form a closed loop.

Ans ✓ 1.

one end of the winding to the starting end of other winding

✗ 2.

one end of an inductor to the starting end of the resistor

✗ 3. one end of the resistor to the inductor

✗ 4.

one end of an inductor to the neutral end of the resistor

Q.8 The characteristics of the material that allows it to be pulled out into a wire is called as _____.

Ans ✗ 1. solderability

✗ 2. malleability

✓ 3. ductility

✗ 4. superconductivity

Q.9 An alternating voltage of 50 Hz frequency and 100 A maximum value is given by _____.

Ans ✗ 1. $v = 200 \sin 628t$

✓ 2. $v = 100 \sin 314t$

✗ 3. $v = 100\sqrt{2} \sin 157t$

✗ 4. $v = 100\sqrt{2} \sin 314t$

Q.10 The potential difference between any two lines of supply in a three-phase system is called _____.

Ans ✗ 1. phase current

✓ 2. line voltage

✗ 3. line current

✗ 4. phase voltage

Q.11 A capacitor consists of two similar plates each measuring 10 cm × 10 cm mounted parallel and opposite to each other. The value of capacitance when the distance between them is 1 cm and dielectric used in air will be _____.

Ans ✗ 1. 8.854 F

✓ 2. 8.854 pF

✗ 3. 8.854 μF

✗ 4. 8.854 mF

Q.12 A balanced three-phase star-connected load draws power from a 440 V supply. The two connected wattmeters, W1 and W2, indicate 5 kW and 1200 W. Calculate the total power.

Ans ✗ 1. 5 kW

✗ 2. 6,200 kW

✗ 3. 62 kW

✓ 4. 6,200 W

Q.13 Three identical impedances, each of $(9.8 + j10)\ \Omega$, are connected to a 400 V, 50 Hz, AC power supply. The power supplied to the load is measured by the two-wattmeter method. If the impedances are connected in a delta, find the readings of the two wattmeters.

Ans ✗ 1. W1 = -4.4 kW and W2 = 1 kW

  ✗ 2. W1 = 1 kW and W2 = 4.4 kW

  ✓ 3. W1 = 19 kW and W2 = 4.9 kW

  ✗ 4. W1 = 6.36 kW and W2 = 1.64 kW

Q.14 A 3-phase 10 kV·A load has a power factor of 0.342. The power is measured by the two-wattmeter method.
Find the reading of each wattmeter when the power factor is leading.

Question ID : 6044815207

Ans ✓ 1. W1 = -1 kW and W2 = 4.4 kW

  ✗ 2. W1 = -4.4 kW and W2 = 1 kW

  ✗ 3. W1 = 1 kW and W2 = 4.4 kW

  ✗ 4. W1 = 4.4 kW and W2 = 1 kW

Q.15 Which of the following statements is FALSE?

Question ID : 6044815183

Ans ✓ 1.

A single-phase system has many advantages over a three-phase system.

  ✗ 2.

The supply frequency of a single-phase AC system in India is 50 Hz.

  ✗ 3.

To develop a polyphase system, the armature winding in a generator is divided into the required number of phases.

  ✗ 4.

A three-phase system is found to be more economical.

Q.16 Which of the following compounds is widely used in the manufacture of ferrites?

Question ID : 6044815250

Ans ✓ 1. Fe_2O_3

  ✗ 2. CuO

  ✗ 3. FeO

  ✗ 4. MgO

Q.17 The term 'ωL' is called the inductive reactance and is given by:

Question ID : 6044815309

Ans ✗ 1. $\dfrac{1}{(2\pi f l)}$

  ✗ 2. $2\pi f c$

  ✓ 3. $2\pi f l$

  ✗ 4. $\dfrac{1}{(2\pi f c)}$

Q.18 The two-wattmeter method is used to measure the total power in a balanced circuit powered by a 415 V, 50 Hz, three-phase, balanced power supply. If one wattmeter reads 4.5 kW and the other reads zero, the total power calculated will be _____.

Question ID : 6044815264

Ans ✓ 1. 4.5 kW

  ✗ 2. 0 W

  ✗ 3. -4.5 kW

  ✗ 4. 9 kW

Q.19 Find the input power when a 7.46 kW, three-phase induction motor having 85% efficiency is connected to a 400V, 50Hz AC supply.

Question ID : 6044815219

Ans ✗ 1. 74.6 kW

  ✗ 2. 7.46 kW

  ✗ 3. 6.87 kW

  ✓ 4. 8.78 kW

Q.20 What happens when the paramagnetic material is heated above the Curie temperature?

Question ID : 6044815249

Ans ✗ 1. It becomes anti-ferromagnetic.

✗ 2. It becomes diamagnetic.

✗ 3. It becomes ferromagnetic.

✓ 4. It becomes non-magnetic.

Q.21 What capacitance must be placed in series with a 15-µF capacitor to obtain a total capacitance of 5 µF?

Ans ✗ 1. 25 µF

✓ 2. 7.5 µF

✗ 3. 10 µF

✗ 4. 4 µF

Q.22 स्थिर विद्युत प्रभार के आसपास के क्षेत्र को _____ कहा जाता है।

Ans ✗ 1. चुंबकीय क्षेत्र

✗ 2. विद्युत चुंबकीय क्षेत्र

✓ 3. विद्युत क्षेत्र

✗ 4. विद्युत यांत्रिक क्षेत्र

Q.23 Two capacitors of 2 µF and 4 µF are connected in parallel across a 100-V DC supply. The energy stored in the capacitors will respectively be _____.

Ans ✓ 1. 0.01 J and 0.02 J

✗ 2. 0.1 J and 0.2 J

✗ 3. 0.001 J and 0.002 J

✗ 4. 1 J and 2 J

Q.24 Three identical impedances, each of (9.8+j10) Ω, are connected across a 400 V, 50 Hz AC supply. The power supplied to the load is measured by the two-wattmeter method.

Find the readings of the two wattmeters if the impedances are connected in star.

Ans ✓ 1. W1 = 6.36 kW and W2 = 1.64 kW

✗ 2. W1 = -4.4 kW and W2 = 1 kW

✗ 3. W1 = -6.36 kW and W2 = 1.64 kW

✗ 4. W1 = 1 kW and W2 = 4.4 kW

Q.25 What will be the total capacitance of 10 capacitors of equal capacitance C connected in parallel?

Ans ✗ 1. $9\dfrac{C}{10}$

✗ 2. C

✗ 3. $\dfrac{C}{10}$

✓ 4. 10C

Q.26 कुछ धातुओं या यौगिकों का प्रतिरोध _____ नामक विशेषता के कारण कुछ स्थितियों में गायब हो जाता है।

Ans ✓ 1. अतिचालकता (Superconductivity)

✗ 2. अर्ध-चालकता (semiconductivity)

✗ 3. क्यूरी बिंदु

✗ 4. चुंबकीय विरूपण (magnetostriction)

Q.27 The active material of a nickel-iron battery is _____.

Question ID : **6044815186**

Ans
✗ 1. 21% solution of H_2SO_4

✗ 2. Powdered NaCl and its oxide

✗ 3. 98% solution of KCl

✔ 4. nickel hydroxide

Q.28 An alternating current is given by i = 10 sin 314t A. Its RMS value will be _____.

Question ID : **6044815304**

Ans
✗ 1. 0.707 A

✔ 2. 7.07 A

✗ 3. 5 A

✗ 4. 10 A

Q.29 In ferroelectric materials, the hysteresis loop is the _____ function of the applied electric field.

Question ID : **6044815265**

Ans
✗ 1. parabolic

✔ 2. non-linear

✗ 3. exponential

✗ 4. linear

Q.30 The plate area of a parallel-plate capacitor is 0.01 m^2. The distance between the plates is 2.5 cm. If the insulating medium is air, its capacitance will be _____.

Question ID : **6044815295**

Ans
✗ 1. 35.4×10^{-11}

✗ 2. 3.54×10^{-11}

✔ 3. 3.54×10^{-12}

✗ 4. 3.54×10^{-10}

Q.31 The relation $V_L = \sqrt{3}V_{ph}$ in a three-phase system is applicable to a _____.

Question ID : **6044815193**

Ans
✗ 1. six-phase system too

✗ 2. delta-connected load

✗ 3. star-connected load without a neutral point

✔ 4. star-connected load

Q.32 Find the line current if a three-phase star-connected system is connected to a 400 V, 50 Hz AC supply. Assume Z_{ph} = (9.8+j10) Ω

Question ID : **6044815215**

Ans
✗ 1. 28.57 A

✔ 2. 16.5 A

✗ 3. 10 A

✗ 4. 11.44 A

Q.33 What will be the total power consumed when three coils, each having a resistance of 10 ohms and an impedance of 0.02 H, are connected in star across a 440-V, 50-Hz, three-phase supply?

Question ID : **6044815321**

Ans
✔ 1. 13.88 kW

✗ 2. 25 kW

✗ 3. 21.51 kW

✗ 4. 10 kW

Q.34 The wattmeter measures the angle between the current phasor detected by the _____ and the voltage phasor detected by the _____.

Question ID : **6044815269**

Ans

✗ 1. ammeter, voltmeter

✗ 2. voltmeter, ammeter

✗ 3. voltage coil, current coil

✔ 4. current coil, voltage coil

Q.35 Which of the following is a magnetic material in which a permanent atomic magnetic dipole has a parallel orientation?

Question ID : **6044815248**

Ans ✔ 1. Ferromagnetic

✗ 2. Diamagnetic

✗ 3. Paramagnetic

✗ 4. Ferrimagnetic

Q.36 Three identical coils, each with a 10-ohm resistor and a 0.03-H inductor, are connected in delta across a 440-V, 50-Hz, three-phase power supply. What will be the total power consumed?

Question ID : **6044815314**

Ans ✗ 1. 10 kW

✗ 2. 29.11 kW

✔ 3. 25.42 kW

✗ 4. 50.41 kW

Q.37 Find the phase voltage if a three-phase star-connected system is connected to a 400 V, 50 Hz AC supply. Assume $Z_{ph} = (9.8+j10)\ \Omega$

Question ID : **6044815213**

Ans ✗ 1. 110.24 V

✔ 2. 230.94 V

✗ 3. 400 V

✗ 4. 230 V

Q.38 The insulating materials used for a capacitor are _____.

Question ID : **6044815263**

Ans ✗ 1. paper, mica and rubber

✔ 2. mica, mineral oil and ceramic

✗ 3. ceramic, silica glass and wood

✗ 4. rubber, ceramic and mica

Q.39 Which one of the following materials is used for making permanent magnets?

Question ID : **6044815254**

Ans ✗ 1. Steel

✗ 2. Carbon

✔ 3. Carbon-steel

✗ 4. Graphite

Q.40 _____ is an example of a high-resistivity material.

Question ID : **6044815239**

Ans ✗ 1. Copper

✗ 2. Gold

✗ 3. Silver

✔ 4. Nichrome

Q.41 A 20-mF capacitor is in series with a 150-ohm resistor. The combination is placed across a 40-V DC source. The time constant of the circuit is _____.

Question ID : **6044815286**
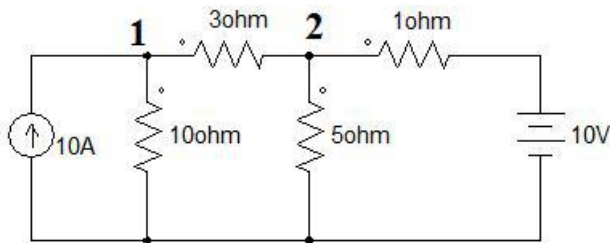
Ans ✗ 1. 8 s

✗ 2. 2.4 s

✗ 3. 6 s

✔ 4. 3 s

Q.42 The wattmeter method is used to measure the power in a three-phase load. The wattmeter readings are 400 W and −35 W. What will be the total active power?

Question ID : **6044815318**

Ans ✘ 1. 360 W

✘ 2. 370 W

✘ 3. 375 W

✔ 4. 365 W

Q.43 Find the node voltage at node 1 in the following circuit.

Question ID : **6044815326**

Ans ✘ 1. 23.7 V

✘ 2. 43.7 V

✔ 3. 33.7 V

✘ 4. 53.7 V

Q.44 Which of the following leads to a low voltage and a low power factor?

Question ID : **6044815310**

Ans ✘ 1. Active power

✘ 2. Resistor

✔ 3. Harmonics

✘ 4. Balanced load

Q.45 Three coils, each having a resistance of 10 ohms and an impedance of 0.02 H, are connected in star across a 440-V, 50-Hz, three-phase power supply. What will be the phase voltage?

Question ID : **6044815323**

Ans ✘ 1. 250.343 V

✔ 2. 254.03 V

✘ 3. 230 V

✘ 4. 0 V

Q.46 The total capacitance of 10 capacitors, each of 5 μF, in series, will be _____ .

Question ID : **6044815283**

Ans ✘ 1. 2 μF

✘ 2. 10 μF

✔ 3. 0.5 μF

✘ 4. 5 μF

Q.47 In a three-phase system, the relation $I_L = \sqrt{3}I_{ph}$ is applicable to a:

Question ID : **6044815195**

Ans ✘ 1. single-phase system too

✔ 2. delta-connected load

✘ 3. star-connected load without neutral point

✘ 4. star-connected load

Q.48 Hard magnetic materials are used for manufacturing _____ .

Question ID : **6044815244**

Ans ✘ 1. temporary magnets

✔ 2. permanent magnets

✘ 3. conductors

✘ 4. insulator

Q.49 A lead-acid battery should NOT be discharged beyond _____.

Question ID : **6044815201**

Ans
✘ 1. 3.75 V

✘ 2. 2.2 V

✔ 3. 1.8 V

✘ 4. 5 V

Q.50 The time constant value in an R-L circuit is given by:

Question ID : **6044815312**

Ans
✘ 1. v i t

✘ 2. RC

✘ 3. iR

✔ 4. $\dfrac{L}{R}$

Q.51 The output voltage, when five cells of 2 V each are connected in parallel, will be _____.

Question ID : **6044815198**

Ans
✘ 1. 0.4 V

✘ 2. 1 V

✘ 3. 2.5 V

✔ 4. 2 V

Q.52 For balanced lagging power factor, according to two wattmeter method,
$W1 = V_L I_L \cos(30 - \Phi)$

$W2 = V_L I_L \cos(30 + \Phi)$
The total reactive volt-amperes Q is given by

Question ID : **6044815202**

Ans
✘ 1. $Q = 0$

✘ 2. $Q = \sqrt{3}\, V_L I_L \sin\Phi$

✘ 3. $Q = 1$

✔ 4. $Q = V_L I_L \sin\Phi$

Q.53 The two-wattmeter method is used to measure the power of a three-phase balanced system, powered by a 415 V, three-phase, and 50 Hz power supply. If the reading on both wattmeters is 8.5 kW, calculate the line current.

Question ID : **6044815236**

Ans
✔ 1. 23.65 A

✘ 2. 23.65 V

✘ 3. 2.365 V

✘ 4. 2.365 A

Q.54 ध्रुवीकरण के लिए इकाई _____ है।

Question ID : **6044815262**

Ans
✘ 1. Hm²

✘ 2. टेस्ला

✔ 3. $\dfrac{C}{m^2}$

✘ 4. Cm²

Q.55 Which of the following conditions is unlikely to occur in a voltage surge?

Question ID : **6044815311**

Ans
✘ 1. Damage to insulation

✗ 2. Damage to electronic components

✗ 3. Tripping of sensitive equipment

✔ 4. Flicker in incandescent lamps

Q.56 The frequency of the DC system in India is _____.

Ans ✗ 1. 60 Hz

✗ 2. 50 Hz

✔ 3. 0 Hz

✗ 4. 110 Hz

Q.57 The capacitance of a parallel-plate capacitor is given by _____.

Ans ✗ 1. $C = \epsilon_r\, d/A$

✗ 2. $C = \epsilon_0\, d/A$

✗ 3. $C = \epsilon_r\, A/d$

✔ 4. $C = \epsilon_0\, A/d$

Q.58 What is the expression for current in the R-C circuit?

Ans ✔ 1. $i = \left(\frac{V}{R}\right) \exp\left(\frac{-t}{RC}\right)$

✗ 2. $i = \left(\frac{V}{R}\right) - \exp\left(\frac{-t}{RC}\right)$

✗ 3. $i = \left(\frac{V}{R}\right) - \exp\left(\frac{t}{RC}\right)$

✗ 4. $i = \left(\frac{V}{R}\right) - \exp\left(\frac{-t}{RC}\right)$

Q.59 For a star-connected three-phase AC circuit, the:

Ans ✗ 1. line current is equal to three times the phase current

✔ 2. phase current is equal to the line current

✗ 3. phase current is three times the line current

✗ 4. line current is equal to the phase voltage

Q.60 The two-wattmeter method is used for the measurement of the total power in a balanced circuit. Current is supplied from a 415 V, 50 Hz, three-phase, balanced supply. Calculate the total power if both the readings are 4.5 kW each.

Ans ✗ 1. 9.5 kW

✗ 2. 900 kW

✔ 3. 9 kW

✗ 4. 900 W

Q.61 A balanced three-phase star-connected load draws power from a 440V supply. The two connected wattmeters, W1 and W2, indicate 5 kW and 1,200 W respectively. Calculate the current in the circuit.

Ans ✔ 1. 11.86 A

✗ 2. 15.56 A

✗ 3. 1.11 A

✗ 4. 10.11 A

Q.62

The two-wattmeter method is used to measure the input power of a three-phase induction motor. If the two wattmeter readings are 1,700 W and 1,100 W, determine the input current drawn from a 440 V, 3-phase AC supply.

Ans
✗ 1. 0.54 A
✗ 2. 0.32 A
✔ 3. 0.4 A
✗ 4. 0.525 A

Q.63 A three-phase, balanced, delta-connected load of $(4 + j8)\,\Omega$ is connected to a 400-V, 3-Ø balanced power supply. Assuming that the phase sequence is RYB, determine the phase current I_R.

Question ID : **6044815325**

Ans
✗ 1. $45.74\angle{-}63.4°$ A
✔ 2. $44.74\angle{-}63.4°$ A
✗ 3. $44.74\angle63.4°$ A
✗ 4. $45.74\angle63.4°$ A

Q.64 A standard sinusoidal current wave changes its polarity at _____.

Question ID : **6044815297**

Ans
✗ 1. negative value
✔ 2. zero value
✗ 3. minimum value
✗ 4. maximum value

Q.65 If Q is the charge and C be the capacitance, then the energy stored in the capacitor is given by _____.

Question ID : **6044815277**

Ans
✗ 1. $\dfrac{Q}{2C}$

✗ 2. $\dfrac{1}{2}QC$

✔ 3. $\dfrac{Q^2}{2C}$

✗ 4. $\dfrac{1}{QC}$

Q.66 The two-wattmeter method is used to measure a three-phase power supply. If the two wattmeter readings are 2 kW and 500 W, determine the total power of the circuit.

Question ID : **6044815243**

Ans
✗ 1. 25 kW
✗ 2. 250 W
✔ 3. 2.5 kW
✗ 4. 25 W

Q.67 According to Gauss's law, if E is _____, the charge density in the ideal conductor is zero.

Question ID : **6044815241**

Ans
✗ 1. positive
✗ 2. negative
✔ 3. zero
✗ 4. unity

Q.68 What is the relationship between the line voltage and the phase voltage in a delta-connected load?

Question ID : **6044815324**

Ans
✗ 1. Line voltage = Phase current
✗ 2. Line voltage > Phase voltage
✗ 3. Line voltage < Phase voltage
✔ 4. Line voltage = Phase voltage

Q.69 A 10-μF capacitor in series with a 1-MΩ resistor is connected across a 100-V DC supply. The initial rate of rise of voltage across the capacitor is _____.

Ans ✔ 1. 10 V/s

✗ 2. 0.01 V/s

✗ 3. 1 V/s

✗ 4. 0.1 V/s

Q.70 Find the phase voltage if a three-phase star-connected system is connected to a 400 V, 50 Hz AC supply. Assume Z_{ph} consists of a resistance of 10 Ω in series with an inductance of 0.0318 H.

Ans ✗ 1. 400 V

✔ 2. 230.94 V

✗ 3. 230 V

✗ 4. 110.24 V

Q.71 A three-phase star-connected balanced load of (4−j3) Ω per phase is connected across three-phase, 50 Hz, 400 V AC supply. If the two-wattmeter method is used to determine input power, find each wattmeter reading.

Ans ✔ 1. 18.34 kW and 7.26 kW

✗ 2. 18.34 kW and 46 kW

✗ 3. 23 kW and 23 kW

✗ 4. 25.60 kW and 23.23 kW

Q.72 Three capacitors of 3 μF, 6 μF and 12 μF are connected in parallel across an AC source. The maximum current will pass through the _____.

Ans ✔ 1. 12-μF capacitor

✗ 2. all the capacitors

✗ 3. 3-μF capacitor

✗ 4. 6-μF capacitor

Q.73 In a three-phase system, the current passing through any two lines of supply is called _____.

Ans ✗ 1. line voltage

✗ 2. phase current

✗ 3. phase voltage

✔ 4. line current

Q.74 The balanced load of a delta connection is powered by a three-phase balanced 400 V, 50 Hz AC power supply. The readings of the two powermeters are 970 W and 480 W respectively. Each phase load consists of a series of resistors and inductors. Calculate the power factor.

Ans ✗ 1. 1

✔ 2. 0.86 lag

✗ 3. 0.65 lag

✗ 4. 0.98 lag

Q.75 The balanced load of a delta-connection is powered by a three-phase balanced 400 V, 50 Hz AC power supply. The readings of the two powermeters are 970 W and 480 W, respectively. Each phase of load consists of a series of resistors and inductors. Calculate the line current.

Ans ✗ 1. 1.4 A

✔ 2. 2.42 A

✗ 3. 24.2 A

✗ 4. 14 A

Q.76 The power in a three-phase circuit is given by the equation; _____.

Ans ✔ 1. P = 3 VPh IPh CosΦ

✗ 2. P = 3 VL IL CosΦ

✗ 3. $P = \sqrt{3} \ V_{ph} \ I_L \ Cos\Phi$

✗ 4. $P = \sqrt{3} \ V_L \ I_{ph} \ Cos\Phi$

Q.77 Consider a three-phase system and match the following:

Question ID : 6044815197

A. Active power	D. $\sqrt{3} \ V_L I_L$
B. Reactive power	E. $\sqrt{3} \ V_L I_L sin\Phi$
C. Apparent power	F. $\sqrt{3} \ V_L I_L cos\Phi$

Ans
✗ 1. A-F, B-D, C-E

✔ 2. A-F, B-E, C-D

✗ 3. A-E, B-F, C-D

✗ 4. A-D, B-F, C-E

Q.78 When a 4-V EMF is applied across a 1-F capacitor, it will store _____ of energy.

Question ID : 6044815289

Ans
✗ 1. 2 J

✗ 2. 4 J

✗ 3. 6 J

✔ 4. 8 J

Q.79 A balanced three-phase star-connected load draws power from a 440 V supply. The two connected wattmeters, W1 and W2, indicate 5 kW and 1,200 W respectively. Calculate the power factor of the system.

Question ID : 6044815252

Ans
✗ 1. 0.54

✗ 2. 0.98

✔ 3. 0.69

✗ 4. 0.75

Q.80 The unit of capacitance is _____.

Question ID : 6044815267

Ans
✗ 1. Henry

✔ 2. Coulomb/Volt

✗ 3. Volts/Coulomb

✗ 4. Ohms

Q.81 After _____ number of time constants, the transient portion reaches more than 99% of its final value.

Question ID : 6044815313

Ans
✗ 1. 3

✔ 2. 5

✗ 3. 1

✗ 4. 0

Q.82 The two-wattmeter method is used to measure the total power in a balanced circuit powered by a 415 V, 50 Hz, three-phase, balanced power supply. If both readings are 4.5 kW but have opposite signs, the total power calculated will be _____.

Question ID : 6044815260

Ans
✗ 1. 9.5 kW

✔ 2. 0 W

✗ 3. 950 W

✗ 4. 9 kW

Q.83 ट्रांसफार्मर तेल की श्यानता _____ होनी चाहिए।

Question ID : 6044815261

Ans ✗ 1. बहुत अधिक

✗ 2. अधिक

✔ 3. निम्न (low)

✗ 4. मध्यम

Q.84 Find the odd one from the following.

Question ID : 6044815230

Ans ✔ 1. Brass

✗ 2. Manganin

✗ 3. Constantan

✗ 4. Nichrome

Q.85 A delta-connected balanced load is supplied from a three-phase balanced 400 V, 50 Hz AC supply. The readings on the two wattmeters are 970 W and 480 W respectively. Each phase of load consists of resistance and inductance connected in series. Calculate the total active power consumed.

Question ID : 6044815226

Ans ✗ 1. 14.5 kW

✗ 2. 1,450 kW

✔ 3. 1.45 kW

✗ 4. 145 kW

Q.86 The line voltage V_{RY} in a three-phase system is equal to:

Question ID : 6044815320

Ans ✗ 1. the algebraic sum of V_{RN} and V_{NY}

✗ 2. the phasor sum of V_{RN} and V_{NY}

✗ 3. the phasor difference between V_{RN} and V_{NY}

✔ 4. the phasor sum of V_{RN} and V_{NY}

Q.87 The phase sequence is important in determining the direction of rotation of the _____.

Question ID : 6044815184

Ans ✗ 1. DC series motor

✗ 2. BLDC motor

✗ 3. DC shunt motor

✔ 4. AC motor

Q.88 In an R-C circuit, when the switch S is closed, the response _____.

Question ID : 6044815316

Ans ✔ 1. decays with time

✗ 2. rises with time

✗ 3. do not vary with time

✗ 4. first increases and then decreases

Q.89 Lead, in case of lead-acid cell, is known as _____.

Question ID : 6044815200

Ans ✗ 1. negative passive material

✔ 2. negative active material

✗ 3. positive passive material

✗ 4. positive active material

Q.90 A capacitor stores 0.4 C of charge at 2 V. Its capacitance is _____.

Question ID : 6044815285

Ans ✗ 1. 3.2 F

✗ 2. 0.8 F

✗ 3. 0.4 F

✔ 4. 0.2 F

Q.91 A capacitor charged to 200 V has 2000 µC of charge. The value of capacitance will be _____.

Ans
✗ 1. 100 F

✗ 2. 100 µF

✔ 3. 10 µF

✗ 4. 10 F

Q.92 A voltage is said to be alternating when it changes in _____.

Ans
✗ 1. neither magnitude nor direction

✗ 2. magnitude only

✗ 3. direction only

✔ 4. both magnitude and direction

Q.93 Three identical coils each having a resistance of 10 ohms and an inductance of 0.03 H are connected in delta across a 440-V, 50-Hz, three-phase supply. What will be the power factor?

Ans
✔ 1. 0.72 Lagging

✗ 2. 0

✗ 3. 1

✗ 4. 0.75 Leading

Q.94 A 10-µF capacitor in series with a 1-MΩ resistor is connected across a 100-V DC supply. The time constant of the circuit is _____.

Ans
✗ 1. 0.1 s

✗ 2. 10 m/s

✔ 3. 10 s

✗ 4. 100 s

Q.95 Find the odd one from the following.

Ans
✗ 1. Hardness

✗ 2. Ductility

✔ 3. Resistivity

✗ 4. Tensile strength

Q.96 A capacitor consists of two conducting surfaces separated by a/an _____.

Ans
✗ 1. semiconductor

✗ 2. alloy

✗ 3. metal

✔ 4. insulator

Q.97 Which of the following properties must be used for the fuse material used in the wire?

Ans
✔ 1. Low melting point

✗ 2. Low conductivity

✗ 3. High melting point

✗ 4. High resistivity

Q.98 The capacitance of a capacitor formed by two parallel plates, each 200 cm² in area, separated by a 4-mm-thick dielectric is 0.0004 μF. If a voltage of 20000 V is applied across it, then the total charge on the plates will be _____.

Question ID : **6044815292**

Ans
- ✗ 1. 8 mC
- ✗ 2. 8 C
- ✗ 3. 8 nC
- ✔ 4. 8 μC

Q.99 In a three-phase system, the order in which the voltages attain their maximum positive value is called _____.

Question ID : **6044815182**

Ans
- ✗ 1. RMS voltage
- ✗ 2. peak-to-peak voltage
- ✔ 3. a phase sequence
- ✗ 4. power factor

Q.100 The time constant value in an R-C circuit is given by:

Question ID : **6044815317**

Ans
- ✗ 1. $\dfrac{R}{L}$
- ✗ 2. $\dfrac{R}{V}$
- ✗ 3. $\dfrac{R}{C}$
- ✔ 4. RC

Q.101 The heating element of an electric iron is composed of _____.

Question ID : **6044815238**

Ans
- ✗ 1. aluminium
- ✗ 2. copper
- ✔ 3. nichrome
- ✗ 4. constantan

Q.102 A three-phase 10 kV·A load has a power factor of 0.342. The power is measured by the two-wattmeter method. Find the reading of each wattmeter when the power factor is lagging.

Question ID : **6044815208**

Ans
- ✗ 1. W1 = 1 kW and W2 = 4.4 kW
- ✗ 2. W1 = -1 kW and W2 = -4.4 kW
- ✔ 3. W1 = 4.4 kW and W2 = -1 kW
- ✗ 4. W1 = -4.4 kW and W2 = 1 kW

Q.103 The two-wattmeter method is used to measure a three-phase power supply. If the two wattmeter readings are 2 kW and 500 W, determine the power factor of the circuit.

Question ID : **6044815245**

Ans
- ✗ 1. 0.9
- ✗ 2. 0.85
- ✗ 3. 0.8
- ✔ 4. 0.7

Q.104 Insulating materials should have _____ dielectric strength and _____ dielectric loss.

Question ID : **6044815221**

Ans
- ✗ 1. high; high
- ✗ 2. low; low
- ✔ 3. high; low

✗ 4. low; high

Q.105 If a number of capacitors are connected in series, then the total capacitance of the combination will be _____.

Question ID : 6044815281

Ans
✗ 1.
greater than the capacitance of the largest capacitor

✗ 2.
The average of the capacitances of all the capacitors

✗ 3.
greater than the capacitance of any individual capacitor

✓ 4.
smaller than the capacitance of the smallest capacitor

Q.106 The two-wattmeter method is used to measure a three-phase power supply. If the two wattmeter readings are 2 kW and 500 W, determine the input current drawn from a 440 V, three-phase AC supply if the load is delta connected.

Question ID : 6044815247

Ans
✓ 1. 5.2 A
✗ 2. 2.58 A
✗ 3. 25.86 A
✗ 4. 26.95 A

Q.107 Find the phase current if a three-phase star-connected system is connected to a 400 V, 50 Hz AC supply. Assume Z_{ph} consists of a resistance of 10 Ω in series with inductance of 0.0318 H.

Question ID : 6044815212

Ans
✗ 1. 2.30 A
✗ 2. 40 A
✗ 3. 23.23 A
✓ 4. 16.33 A

Q.108 Plastics are:

Question ID : 6044815258

Ans
✗ 1. good conductors of electricity
✗ 2. high-density materials
✓ 3. bad conductors of electricity
✗ 4. good conductors of heat

Q.109 During the discharge of a lead-acid battery, the terminal voltage drops as there is a drop in _____.

Question ID : 6044815187

Ans
✗ 1. electrolyte
✗ 2. electrode size
✗ 3. temperature
✓ 4. discharge rate

Q.110 In a three-phase system, the relation $I_L = I_{ph}$ is applicable to a _____.

Question ID : 6044815194

Ans
✗ 1. delta-connected load
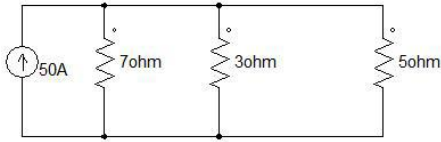**✗ 2.** star-connected load without neutral point
✗ 3. single-phase system too
✓ 4. star-connected load

Q.111

Question ID : 6044815328

Determine the current flowing through the 5-Ω resistor in the following circuit.

Ans

❌ 1. 10.523 A

❌ 2. 5 A

✔️ 3. 14.79 A

❌ 4. 3.9 A

Q.11 2 Mica is a:

Ans

✔️ 1. insulating and dielectric material

❌ 2. dielectric material but not insulator

❌ 3. insulating material but not dielectric

❌ 4. magnetic material

Q.11 3 An alternating voltage is given by the expression v = 200 sin (314t + π/3) A. The maximum value and frequency of the voltage are respectively _____.

Ans

❌ 1. 200 A and 25 Hz

❌ 2. 200 A and 100 Hz

✔️ 3. 200 A and 50 Hz

❌ 4. $100\sqrt{2}$ A and 50 Hz

Q.11 4 A material having a property of becoming polarised in response to an applied mechanical stress is called _____.

Ans

❌ 1. ferrolectric

❌ 2. superconducting

✔️ 3. piezoelectric

❌ 4. optoelectronic

Q.11 5 Which material is used for overhead tram lines?

Ans

✔️ 1. Copper alloys

❌ 2. Nickel

❌ 3. Bronze

❌ 4. Aluminium

Q.11 6 Which one of the following must be ensured when two batteries are connected in parallel?

Ans

❌ 1. They should have the same make.

✔️ 2. They should have the same emf.

❌ 3.
They should have the same internal resistance.

❌ 4.
They should have the same ampere-hour capacity.

Q.11

7 Permittivity is expressed in _____.

Question ID : **6044815272**

Ans ✗ 1. Farad

✗ 2. Farad/mm

✓ 3. Farad/m

✗ 4. Farad/ mm²

Q.11 8 The two-wattmeter method is used to measure the input power of a three-phase induction motor. If the two wattmeter readings are 1,700 W and 1,100 W, determine the power factor of the motor.

Question ID : **6044815223**

Ans ✓ 1. 0.9375 lagging

✗ 2. Unity

✗ 3. 0.85 lagging

✗ 4. 0.9784 lagging

Q.11 9 For a delta-connected load being measured for power by the two-wattmeter method, if I_{ph} will lead V_{ph} by angle Φ then it is the case of _____.

Question ID : **6044815181**

Ans ✗ 1. Short circuit

✓ 2. Leading power factor

✗ 3. Lagging power factor

✗ 4. Open circuit

Q.12 0 In a single-phase AC system, two wires are sufficient for transmitting voltage to the load. These are:

Question ID : **6044815185**

Ans ✗ 1. red and yellow

✓ 2. phase and neutral

✗ 3. red and blue

✗ 4. positive wire and negative wire

Q.12 1 An alternating current is given by i = 20 sin 157t A. The frequency of the alternating current is _____.

Question ID : **6044815301**

Ans ✗ 1. 100 Hz

✗ 2. 75 Hz

✓ 3. 25 Hz

✗ 4. 50 Hz

Q.12 2 The two-wattmeter method is used to measure the power of a three-phase balanced system, powered by a 415 V, three-phase, 50 Hz power supply. If the reading on both wattmeters is 8.5 kW, calculate the power factor.

Question ID : **6044815235**

Ans ✓ 1. 1

✗ 2. 0.98 lagging

✗ 3. 0.88 lagging

✗ 4. 0.858 lagging

Q.12 3 संधारित्र के चार्जिंग के दौरान, धारा वास्तव में अपने प्रारंभिक अधिकतम मूल्य के _____ प्रतिशत तक गिरता है।

Question ID : **6044815279**

Ans ✗ 1. 73

✗ 2. 42

✗ 3. 63

✓ 4. 37

Q.124 The RMS value of a sine wave having peak value Vm over one cycle is _____.

Question ID : **6044815302**

Ans

✗ 1. Vm

✗ 2. $\dfrac{Vm}{\pi}$

✓ 3. $\dfrac{Vm}{\sqrt{2}}$

✗ 4. Zero

Q.125 A three-phase star-connected balanced load of (4+j3) Ω per phase is connected across a three-phase, 50 Hz, 400 V AC supply. Determine the power factor of the load.

Question ID : **6044815216**

Ans

✓ 1. 0.8 lagging

✗ 2. 0.3 leading

✗ 3. 0.9 lagging

✗ 4. 0.7 leading

Q.126 In a three-phase system, the relation $V_L = V_{ph}$ is applicable to a _____.

Question ID : **6044815196**

Ans

✗ 1. star-connected load

✓ 2. delta-connected load

✗ 3. star-connected without neutral point

✗ 4. single-phase system also

Q.127 The dielectric strength of a material depends on its _____.

Question ID : **6044815275**

Ans

✗ 1. ductility

✗ 2. density

✗ 3. volume

✓ 4. moisture content

Q.128 Two capacitors of capacitances $C_1 = 0.1\ \mu F$ and $C_2 = 0.2\ \mu F$ are connected in series across a 300-V source. The voltage across C_1 will be _____.

Question ID : **6044815284**

Ans

✗ 1. 150 V

✗ 2. 300 V

✗ 3. 100 V

✓ 4. 200 V

Q.129 Find the phase current if a three-phase star-connected system is connected to a 400 V, 50 Hz AC supply. Assume $Z_{ph} = (9.8+j10)\ \Omega$

Question ID : **6044815214**

Ans

✗ 1. 28.57 A

✗ 2. 10 A

✗ 3. 11.44 A

✓ 4. 16.5 A

Q.130 If two 5-μF capacitors are connected in parallel, then the effective capacitance will be _____.

Question ID : **6044815282**

Ans

✗ 1. 2.5 μF

✗ 2. 25 μF

✔ 3. 10 μF
✘ 4. 20 μF

Q.131 The Hall effect is associated with _____.

Question ID : 6044815240

Ans ✘ 1. thermistors
✘ 2. solders
✘ 3. semiconductors
✔ 4. conductors

Q.132 Three coils, each having a resistance of 10 ohms and an impedance of 0.02 H, are connected in star across a 440-V, 50-Hz, three-phase supply. What will be the line current?

Question ID : 6044815322

Ans ✘ 1. 25 A
✘ 2. 25.4 A
✘ 3. 0 A
✔ 4. 21.51 A

Q.133 In a three-phase load, _____ different impedances are connected together in a star or delta fashion.

Question ID : 6044815192

Ans ✘ 1. six
✘ 2. zero
✔ 3. three
✘ 4. one

Q.134 A device capable of detecting voltage, current and the angle between the voltage and the current to provide power readings directly in watts is known as a/an:

Question ID : 6044815280

Ans ✘ 1. ammeter
✔ 2. wattmeter
✘ 3. power factor meter
✘ 4. voltmeter

Q.135 When two quantities are in quadrature, the phase angle between them will be _____.

Question ID : 6044815306

Ans ✔ 1. 90°
✘ 2. 45°
✘ 3. 135°
✘ 4. 60°

Q.136 The two-wattmeter method is used for the measurement of power in a three-phase balanced system, supplied from a 415 V, three-phase, 50 Hz supply. If the reading on both wattmeters is 8.5 kW, calculate the total power consumed.

Question ID : 6044815234

Ans ✘ 1. 2.36 kW
✘ 2. 20 kW
✘ 3. 22.2 kW
✔ 4. 17 kW

Q.137 A three-phase star-connected balanced load of (4+j3) Ω per phase is connected across a three-phase, 50 Hz, 400 V AC supply. Determine current drawn from the supply

Question ID : 6044815217

Ans ✔ 1. 46.188 A
✘ 2. 20.23 A
✘ 3. 50.54 A

✗ 4. 50.522 A

Q.138 Alternating quantities of _____ frequencies can be represented on the same phasor diagram.

Ans
✗ 1. different
✗ 2. negative
✔ 3. same
✗ 4. multiple

Q.139 A thermocouple is used for measurement of _____.

Ans
✗ 1. pressure
✔ 2. temperature
✗ 3. density
✗ 4. humidity

Q.140 The energy stored in a capacitor is given by _____.

Ans
✗ 1. C^2V
✔ 2. $\dfrac{CV^2}{2}$
✗ 3. $\dfrac{C^2V}{2}$
✗ 4. CV

Q.141 Insulators have:

Ans
✗ 1. conducting paths
✗ 2. an empty conduction band
✔ 3. a large energy gap
✗ 4. a full valence band

Q.142 The capacitance of a capacitor is _____ the distance between the metal plates.

Ans
✔ 1. inversely proportional to
✗ 2. independent of
✗ 3. directly proportional to square of
✗ 4. directly proportional to

Q.143 Determine the current flowing through the 7-Ω and 3-Ω resistors, respectively, in the following circuit.

50A 7ohm 3ohm 5ohm
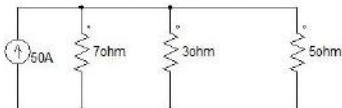
Ans
✗ 1. 5 A and 4.8 A
✔ 2. 10.56 A and 24.65 A
✗ 3. 11.254 A and 9.582 A
✗ 4. 2 A and 4 A

Q.144 Which of the following statements is applicable for a three-phase AC circuit for a star connection?

Question ID : **6044815205**

Ans ✔ 1.

Phase voltage is square root three times the line voltage and phase current is equal to the line current.

✘ 2.

Phase voltage is equal to the line current and line current is equal to the phase voltage.

✘ 3.

Phase voltage is equal to line voltage and phase current is three times the line current.

✘ 4.

Phase voltage is equal to the line voltage and line current is equal to the phase current.

Q.145 For a star-connected load being measured for power by the two-wattmeter method, if $W_1 = V_1 I_1 \cos(30 - \Phi)$ and $W2 = W_2 = V_L I_L \cos(30 + \Phi)$, then the total 3-phase power will be:

Question ID : **6044815179**

Ans ✘ 1. $3\,V_{ph}I_{ph}\sin(\Phi)$

✔ 2. $\sqrt{3}\,V_L I_L \cos(\Phi)$

✘ 3. $\sqrt{3}\,V_{ph}I_{ph}\sin(30 + \Phi)$

✘ 4. $\sqrt{3}\,V_L I_L \cos(30 + \Phi)$

Q.146 The wattmeter method is used to measure the power in a three-phase load. The wattmeter readings are 400 W and −35 W. What will be the power factor?

Question ID : **6044815319**

Ans ✘ 1. 0.85

✘ 2. 0.9

✔ 3. 0.43

✘ 4. 0.635

Q.147 Which of the following is NOT a conductive material?

Question ID : **6044815222**

Ans ✘ 1. Copper

✔ 2. Germanium

✘ 3. Tungsten

✘ 4. Platinum

Q.148 Which of the statements is correct for a permanent magnetic material?

Question ID : **6044815255**

Ans ✔ 1.

The residual induction and the coercive field should be large.

✘ 2. The area of hysteresis loop should be small.

✘ 3.

The initial relative permeability should be small.

✘ 4.

The residual induction and the coercive field should be small.

Q.149 An alternating current is given by i = 100 sin 314t A. Its average value will be _____.

Question ID : **6044815303**

Ans ✘ 1. 70.7 A

✔ 2. 63.7 A

✘ 3. 100 A

✘ 4. 50 A

Q.150

Question ID : **6044815180**

For a delta-connected load being measured for power by the two-wattmeter method, if $W_1 = V_L I_L \cos(30 - \Phi)$ and $W2 = W_2 = V_L I_L \cos(30 + \Phi)$, Then total 3-phase power is:

Ans ✔ 1. $\sqrt{3}\, V_L I_L \cos(\Phi)$

✗ 2. $\sqrt{3} V_{ph} I_{ph} \cos(30 + \Phi)$

✗ 3. $3\, V_{ph} I_{ph} \sin(30 + \Phi)$

✗ 4. $\sqrt{3}\, V_L I_L \sin(30 + \Phi)$

Section : **General Awareness**

Q.1 2018 में विंबलडन से रोजर फेडरर को किसने बाहर कर दिया?

Question ID : **6044815339**

Ans ✔ 1. केविन एंडरसन

✗ 2. मारिन सिलिक

✗ 3. राफेल नडाल

✗ 4. डोमिनिक थिम

Q.2 किस दिन को अंतर्राष्ट्रीय उष्णकटिबंधीय दिबस के रूप में मनाया जाता है? कर्क रेखा और मकर रेखा के बीच का क्षेत्र उष्णकटिबंधीय माना जाता है ।

Question ID : **6044815348**

Ans ✗ 1. 29 जुलाई

✔ 2. 29 जून

✗ 3. 29 अगस्त

✗ 4. 29 सितंबर

Q.3 उस राज्य का नाम बताएँ जिसने हाथियों के लिए प्राकृतिक मार्गों की पहचान और सुरक्षा के लिए 'गज यात्रा 'नामक एक आंदोलन की शुरआत की।

Question ID : **6044815333**

Ans ✗ 1. कर्नाटक

✔ 2. मेघालय

✗ 3. केरल

✗ 4. असम

Q.4 2018 मार्च के अंतिम आंकड़ों के अनुसार, भारत में सबसे ज्यादा लाभदायक सार्बजनिक क्षेत्र इकाई (पीएसयू) कौन सा है?

Question ID : **6044815344**

Ans ✔ 1. आईओसीएल

✗ 2. एचपीसीएल

✗ 3. बीपीसीएल

✗ 4. ओएनजीसी

Q.5 व्हाट्सएप मैसेंजर के साथ स्पर्धा करने के लिए पतंजलि द्वारा लॉन्च किए गए ऐप का नाम बताएँ।

Question ID : **6044815335**

Ans ✗ 1. कैसे हो

✔ 2. किम्भो

✗ 3. कोथाई

✗ 4. काई बोल्चे

Q.6 संयुक्त राष्ट्र पर्यावरण कार्यक्रम (UNEP) द्वारा किस हबाई अड्डे को पूर्णतः (100%) सौर ऊर्जा द्वारा संचालित हबाई अड्डे के रूप में मान्यता दी गयी है?

Question ID : **6044815332**

Ans

✗ 1. मदुरई हवाई अड्डा

✓ 2. कोची अंतरराष्ट्रीय हवाई अड्डा

✗ 3. त्रिवेंद्रम अंतरराष्ट्रीय हवाई अड्डा

✗ 4.

केम्पेगोवड़ा अंतर्राष्ट्रीय हवाई अड्डा (बैंगलोर)

Q.7 निम्नलिखित में से कौन सी टीम रूस में आयोजित फीफा विश्व कप के सेमीफाइनल में नहीं पहुँची?

Question ID : **6044815330**

Ans ✗ 1. फ्रांस

✗ 2. बेल्जियम

✗ 3. इंग्लैंड

✓ 4. स्पेन

Q.8 भारतीय प्रधान मंत्री और दक्षिण कोरियाई राष्ट्रपति ने हाल ही में दुनिया की सबसे बड़ी मोबाइल विनिर्माण इकाई का उद्घाटन किया। यह यूनिट कहां स्थित है?

Question ID : **6044815346**

Ans ✓ 1. नोएडा

✗ 2. चेन्नई

✗ 3. वडोदरा

✗ 4. बेंगलुरु

Q.9 विभिन्न भारतीय जिलों के विकास का मानचित्र बनाने के लिए नीति आयोग द्वारा शुरू की गई वृद्धिशील रैंकिंग प्रणाली का नाम बताएं।

Question ID : **6044815340**

Ans ✗ 1. बीटा रैंकिंग

✓ 2. डेल्टा रैंकिंग

✗ 3. अल्फा रैंकिंग

✗ 4. गामा रैंकिंग

Q.10 जून 2018 में किस राज्य को प्रधान मंत्री द्वारा सुरक्षित मातृत्व अभियान पुरस्कार मिला?

Question ID : **6044815341**

Ans ✗ 1. केरल

✗ 2. कर्नाटक

✗ 3. महाराष्ट्र

✓ 4. मध्य प्रदेश

Q.11 फिल्म निर्माता माइकल ओन्डाटेजे द्वारा युद्ध के समय की प्रेम कहानी का नाम बताएं जिसे जुलाई 2018 में गोल्डन मैन बुकर पुरस्कार प्राप्त हुआ था।

Question ID : **6044815337**

Ans ✓ 1. द इंग्लिश पेशंट

✗ 2. द फ्रेंच पेशंट

✗ 3. द अमेरिकन पेशंट

✗ 4. द चायनीज पेशंट

Q.12 लापता बच्चों का पता लगाने के लिए जून 2018 में लॉन्च किए गए मोबाइल ऐप का नाम बताएं। इसे वाणिज्य और उद्योग मंत्री सुरेश प्रभु ने लॉन्च किया था।

Question ID : **6044815345**

Ans ✓ 1. ReUnite

✗ 2. Milan

✗ 3. Doondo
✗ 4. Bachche Bachao

Q.13 इंटरनेशनल ऑर्गनाइजेशन फॉर माइग्रेशन (आईओएम) के नए नियुक्त निदेशक एंटोनियो बिटोरिनो किस देश से हैं?

Question ID : **6044815347**

Ans
✗ 1. स्पेन
✗ 2. इटली
✗ 3. डेनमार्क
✓ 4. पुर्तगाल

Q.14 किस देश में 12 लड़के और उनके फुटबॉल कोच गुफा में फंस गए थे और अंततः दो हफ्ते के बाद उन्हें बचाया गया था। घटना जुलाई 2018 में हुई थी।

Question ID : **6044815329**

Ans
✗ 1. मंगोलिया
✗ 2. इंडोनेशिया
✓ 3. थाईलैंड
✗ 4. वियतनाम

Q.15 सर्वोच्च न्यायालय के उस न्यायाधीश का नाम बताएं जिन्हें 2018 में राष्ट्रीय उपभोक्ता विवाद निवारण आयोग (NCDRC) का अध्यक्ष नियुक्त किया गया था?

Question ID : **6044815334**

Ans
✗ 1. न्यायमूर्ति कुरियन जोसेफ
✗ 2. न्यायमूर्ति रंजन गोगोई
✗ 3. न्यायमूर्ति भागीरथी
✓ 4. न्यायमूर्ति आर.के. अग्रवाल

Q.16 उस भारतीय प्रौद्योगिकी संस्थान का नाम बताएं जिसने चिकनगुनिया के इलाज के लिए एक शक्तिशाली अणु विकसित किया है।

Question ID : **6044815331**

Ans
✓ 1. IIT रुड़की
✗ 2. IIT मुंबई
✗ 3. IIT कानपुर
✗ 4. IIT मद्रास

Q.17 इलेक्ट्रिक कारों को किराये के रूप में पेश करने के लिए जूमकार के साथ साझेदारी करने वाली भारतीय ऑटो कंपनी का नाम बताएँ।

Question ID : **6044815336**

Ans
✗ 1. हिंदुस्तान मोटर्स
✗ 2. टाटा मोटर्स
✗ 3. मारुति सुजुकी
✓ 4. महिंद्रा एंड महिंद्रा

Q.18 भारत ने हाल ही में किस पड़ोसी देश को दो सड़क परियोजनाओं को पूरा करने के लिए ₹ 33.10 करोड़ रुपये दिए हैं?

Question ID : **6044815343**

Ans
✗ 1. म्यांमार
✗ 2. भूटान
✓ 3. नेपाल
✗ 4. श्रीलंका

Q.19 निम्नलिखित में से किस संस्था के सहयोग से बी.एस.एन.एल. द्वारा स्वदेशी समृद्धि सिम कार्ड लॉन्च किए गए हैं?

Question ID : **6044815342**

Ans ✗ 1. गूगल

✓ 2. पतंजलि

✗ 3. नीति आयोग

✗ 4. रिलायंस जियो

Q.20 फीफा विश्व कप में पिछली बार किस वर्ष में ब्राजील चैंपियन था?

Question ID : **6044815338**

Ans ✗ 1. 2010

✗ 2. 2006

✗ 3. 2014

✓ 4. 2002

Section : **Reasoning**

Q.1 यदि RAGE को 16-4-5-8 के रूप में लिखा गया है, तो DANGLE के लिए क्या कोड होगा?

Question ID : **6044815352**

Ans ✓ 1. 2-4-12-10-10-8

✗ 2. 6-4-16-5-14-8

✗ 3. 6-25-16-9-9-5

✗ 4. 23-4-13-5-15-8

Q.2 Choose the correct mirror image of the following figure from the four options given. The mirror is represented by the line MN.

Question ID : **6044815368**

Ans 1.

✗

2.

✗

3.

✗

4.

✓

Q.3 उस विकल्प का चयन करें जो तीसरे शब्द से उसी प्रकार संबंधित है, जैसे दूसरा शब्द पहले से संबंधित है।

Question ID : **6044815359**

CAT : KITTEN :: ALLIGATOR : _____

Ans ✗ 1. KID

✓ 2. HATCHLING

✗ 3. FRY

✗ 4. PULLET

Q.4 सुनीता टहलने के लिए पश्चिम में 8 m की दूरी पर जाती है और फिर दाहिने ओर 7 m की दूरी पर जाती है। फिर वह अपने बाएं ओर मुड़ती है और 12 m तक चलती है। फिर, वह अपने बाएं ओर मुड़ती है और 28 m चल कर अपने कार्यालय में पहुंच जाती है।

अगर उसने अपने शुरुआती स्थान से सीधे कार्यालय तक जाने का रास्ता लिया हो तो उसे कितना अंतर चलना चाहिए था?

Ans ✗ 1. 41 m

✗ 2. 19 m

✗ 3. 22 m

✔ 4. 29 m

Q.5 Choose the most appropriate option that arranges the following in a logical sequence:

A. Taluka
B. Earth
C. Village
D. Country

Ans ✗ 1. A. Taluka, C. Village, D. Country, B. Earth

✗ 2. A. Taluka, D. Country, C. Village, B. Earth

✔ 3. C. Village, A. Taluka, D. Country, B. Earth

✗ 4. D. Country, C. Village, B. Earth, A. Taluka

Q.6 In a horizontal row of 39 students facing the north direction, Bindu is 9th from the left end of the row. There are 13 students between Bindu and Deeksha. What is the position of Deeksha from the right end of the row?

Ans ✗ 1. 21st

✔ 2. 17th

✗ 3. 19th

✗ 4. 15th

Q.7 Choose the most appropriate option to complete the following series.

V, R, N, ____, F, B

Ans ✗ 1. K

✗ 2. H

✗ 3. P

✔ 4. J

Q.8 नीचे दो कथन और कुछ निष्कर्ष दिए गए हैं। दिए गए कथनों को सत्य मानें ,भले ही वे आम तौर पर ज्ञात तथ्यों से भिन्न हों और दिए गए निष्कर्षों में से कौन से निष्कर्ष तर्कसंगत हैं इसे पहचानें।

कथन:
I. कुछ कारें बसें हैं।
II. कुछ बसें ट्रेनें हैं।

निष्कर्ष:
I. कुछ ट्रेनें कारें हैं।
II. कोई ट्रेन एक कार नहीं है।

Ans ✔ 1. न तो निष्कर्ष I और न ही II तर्कसंगत है।

✗ 2. केवल निष्कर्ष II तर्कसंगत है।

✗ 3. केवल निष्कर्ष I तर्कसंगत है।

✗ 4. दोनों निष्कर्ष I औरII तर्कसंगत हैं।

Q.9 दी गई जानकारी पढ़ें और सबसे उपयुक्त विकल्प चुनकर पूछे गए सवाल का जवाब दें।

32 दोस्तों के एक समूह में, प्रत्येक व्यक्ति स्क्रैबल और पिक्शनरी इन दो खेलों में से कम से कम एक खेल खेलना जानता है। 26 लोग स्क्रैबल खेलना जानते हैं और 19 लोग पिक्शनरी खेलने के बारे में जानते हैं।

कितने लोग स्क्रैबल और पिक्शनरी दोनों खेल सकते हैं?

Ans ✗ 1. 15

$\times$ 2. 10

$\checkmark$ 3. 13

$\times$ 4. 8

Q.10 यदि AN = 39 और NAY = 41, तो CANDY का मान क्या है?

Ans
$\times$ 1. 107

$\times$ 2. 111

$\times$ 3. 90

$\checkmark$ 4. 88

Q.11 नीता द्रविड़ के चित्र की तरफ इशारा करते हुए कहती है, "वह मेरी बेटी के ससुर के एकलौते बेटे की बेटी के नानी का पति है।" द्रविड़ का नीता से क्या रिश्ता है?

Ans
$\checkmark$ 1. पति

$\times$ 2. बेटा

$\times$ 3. पिता

$\times$ 4. भाई

Q.12 Kareem is standing in a garden facing North. He walks 16 m to his right. Then, he turns to his left and walks 19 m. Then, he turns to his right and walks 3 m. Finally, he turns to his right and walks 38 m.

In what direction is his final position with respect to his initial position?

Ans
$\times$ 1. South-west

$\times$ 2. North-west

$\checkmark$ 3. South-east

$\times$ 4. West

Q.13 दी गई जानकारी पढ़ें और सबसे उपयुक्त विकल्प चुनकर पूछे गए सवाल का जवाब दें।

32 दोस्तों के एक समूह में, प्रत्येक व्यक्ति स्क्रैबल और पिक्शनरी इन दो खेलों में से कम से कम एक खेल खेलना जानता है। 26 लोग स्क्रैबल खेलना जानते हैं और 19 लोग पिक्शनरी खेलने के बारे में जानते हैं।

इस समूह में, कितने लोग दो खेलों में से एक खेलना जानते हैं?

Ans
$\times$ 1. 22

$\checkmark$ 2. 19

$\times$ 3. 37

$\times$ 4. 17

Q.14 Choose the most appropriate option to complete the following series.

8, 64, 216, ____, 1000, 1728

Ans
$\times$ 1. 729

$\times$ 2. 343

$\times$ 3. 225

$\checkmark$ 4. 512

Q.15 नीचे एक प्रश्न और (1) और (2) द्वारा दर्शाए गए दो कथन दिए गए हैं जिनमें कुछ डेटा है। यह तय करें कि प्रश्न का उत्तर देने के लिए दिया गया डेटा पर्याप्त है या नहीं।

सवाल: 'T' का मान क्या है?

कथन:
(1) 32M + 14T = 510
(2) 384M + 168T = 6120

Ans
$\times$ 1.
कथन (2) अकेले प्रश्न का उत्तर देने के लिए पर्याप्त है, लेकिन कथन (1) अकेले पर्याप्त नहीं है।

$\times$ 2.
दोनों कथन एकसाथ प्रश्न का उत्तर देने के लिए पर्याप्त हैं, लेकिन कथन अकेले पर्याप्त नहीं है।

✅ 3.

कथन (1) और (2) दोनों एकसाथ सवाल का जवाब देने के लिए पर्याप्त नहीं हैं।

❌ 4.

कथन (1) अकेले प्रश्न का उत्तर देने के लिए पर्याप्त है, लेकिन कथन (2) अकेले पर्याप्त नहीं है।

Q.16 यदि '+' 'घटाव' को दर्शाता है, '-' 'जोड़' को दर्शाता है, '÷' 'गुणा' और '×' भाग को दर्शाता है, तो निम्नलिखित में से कौन सा दिए गए व्यंजक का मान होगा?

Question ID : **6044815364**

$116 \times 58 \div 30 - 24 + 6$

Ans

❌ 1. 108

❌ 2. 126

✅ 3. 116

❌ 4. 138

Q.17 यदि संकेत '+' और '×' को अदल-बदल किया जाता है, तो निम्नलिखित में से कौन सा समीकरण सही होगा?

Question ID : **6044815363**

समीकरण :A $90 \div 6 + 4 - 20 \times 12 = 52$
समीकरण :B $24 + 4 \times 10 - 4 \div 4 = 36$
समीकरण :C $34 \times 12 \div 6 + 10 - 6 = 28$
समीकरण :D $42 \div 14 + 6 \times 4 - 12 - 30$

Ans

✅ 1. समीकरण A

❌ 2. समीकरण B

❌ 3. समीकरण D

❌ 4. समीकरण C

Q.18 नीचे एक कथन और कुछ तर्क दिए गए हैं। दिए गए कथन को सत्य मानें, भले ही वह आम तौर पर ज्ञात तथ्यों से भिन्न हो और दिए गए तर्कों में से कौन से तर्क मजबूत हैं इसे पहचानें।

Question ID : **6044815360**

कथन:
क्या दसवीं कक्षा के छात्रों के माता-पिता को अपने बच्चों को केवल अध्ययन के लिए मजबूर करना चाहिए और साल के दौरान खेल नहीं खेलने देना चाहिए?

तर्क:
I. हाँ, खेल में संलिप्तता परीक्षाओं में कम अंक आने के लिए उत्तरदायी है।
II. नहीं, अध्ययन और खेल के संतुलन से बच्चों के मानसिक और शारीरिक दोनों का विकास होगा।

Ans

❌ 1. दोनों तर्क मजबूत हैं।

❌ 2. केवल तर्क I मजबूत है।

❌ 3. न तो तर्क I और न ही तर्क II मजबूत है।

✅ 4. केवल तर्क II मजबूत है।

Q.19 नीचे एक प्रश्न और (1) और (2) द्वारा दर्शाए गए दो कथन दिए गए हैं जिनमें कुछ डेटा है। यह तय करें कि प्रश्न का उत्तर देने के लिए दिया गया डेटा पर्याप्त है या नहीं।

Question ID : **6044815361**

सवाल: 'K' के 40% का मान क्या है?

कथन:
(1) 'P' का 20% 60 है।
(2) 'K'का 30% 'P' से 120 अधिक है।

Ans

❌ 1.
कथन (2) अकेले प्रश्न का उत्तर देने के लिए पर्याप्त है, लेकिन कथन (1) अकेले पर्याप्त नहीं है।

❌ 2.
कथन (1) और (2) दोनों एकसाथ सवाल का जवाब देने के लिए पर्याप्त नहीं हैं।

✅ 3.
दोनों कथन एकसाथ प्रश्न का उत्तर देने के लिए पर्याप्त हैं, लेकिन कथन अकेले पर्याप्त नहीं है।

❌ 4.
कथन (1) अकेले प्रश्न का उत्तर देने के लिए पर्याप्त है, लेकिन कथन (2) अकेले पर्याप्त नहीं है।

Q.20

Question ID : **6044815350**

नीचे दो कथन और कुछ निष्कर्ष दिए गए हैं। दिए गए कथनों को सत्य मानें, भले ही वे आम तौर पर ज्ञात तथ्यों से भिन्न हों और दिए गए निष्कर्षों में से कौन से निष्कर्ष तर्कसंगत हैं इसे पहचानें।

कथन:
I. सभी पेन किताबें हैं।
II. सभी किताबें बैग हैं।

निष्कर्ष:
I. कुछ किताबें पेन हैं।
II. सभी किताबें पेन हैं।
III. कुछ बैग पेन हैं।
IV. सभी बैग पेन हैं।

Ans ✔ 1. निष्कर्ष I और III तर्कसंगत हैं।

✘ 2. केवल निष्कर्ष III तर्कसंगत है।

✘ 3. केवल निष्कर्ष I तर्कसंगत है।

✘ 4. निष्कर्ष II और IV तर्कसंगत हैं।

Section : **General Hindi**

Q.1 निम्न में से किसका प्रयोग केवल बहुवचन में होता है?

Question ID : **6044815376**

Ans ✘ 1. पाठक

✔ 2. प्राण

✘ 3. नदी

✘ 4. स्त्री

Q.2 निम्न में से 'संज्ञा' शब्द है-

Question ID : **6044815372**

Ans ✘ 1. पुराना

✘ 2. जीना

✘ 3. यह

✔ 4. पहाड़

Q.3 'अनुकरण' में उपसर्ग है-

Question ID : **6044815371**

Ans ✘ 1. अ

✔ 2. अनु

✘ 3. अन

✘ 4. करण

Q.4 'आम के आम गुठलियों के दाम' लोकोक्ति का सही अर्थ है-

Question ID : **6044815378**

Ans ✘ 1. नुकसान होना

✘ 2. चालाक होना

✔ 3. दोहरा लाभ

✘ 4. धनवान होना

Q.5 निम्न में से 'विशेषण' शब्द है-

Question ID : **6044815374**

Ans ✘ 1. नदी

✘ 2. क्या

✔ 3. नया
✘ 4. लिखना

Q.6 निम्न में से 'सर्वनाम' शब्द है-

Question ID : **6044815373**

Ans ✘ 1. सोना
✘ 2. हिमालय
✔ 3. मैं
✘ 4. ताजा

Q.7 निम्न में वर्तनी की दृष्टि से अशुद्ध है-

Question ID : **6044815377**

Ans ✔ 1. उज्वल
✘ 2. आजीविका
✘ 3. अध्याय
✘ 4. अभ्यस्त

Q.8 'सेनानायक' में समास है-

Question ID : **6044815370**

Ans ✔ 1. तत्पुरुष
✘ 2. द्वंद्व
✘ 3. अव्ययीभाव
✘ 4. द्विगु

Q.9 निम्न में तद्भव शब्द है-

Question ID : **6044815369**

Ans ✔ 1. दही
✘ 2. दुग्ध
✘ 3. स्थल
✘ 4. दीपक

Q.10 निम्न में से पुंलिंग शब्द कौन-सा है?

Question ID : **6044815375**

Ans ✘ 1. शिक्षा
✘ 2. सेना
✘ 3. अवस्था
✔ 4. नगर