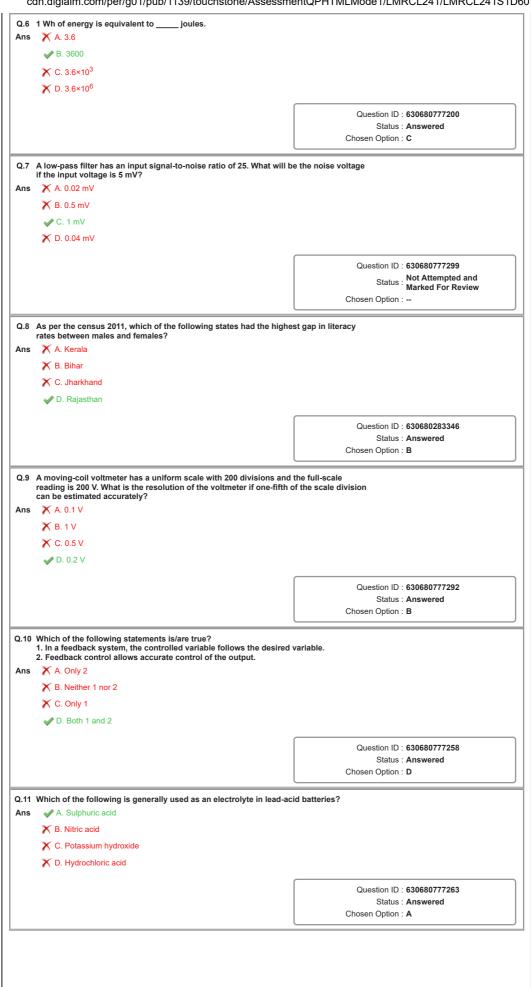


OOOLIC	on : Section A	
Q.1	Which motor is used in generator type DC welding set?	
Ans	✓ A. Differentially compounded DC generator	
	X B. DC series generator	
	✗ C. Cumulatively compounded DC generator	
	X D. DC shunt generator	
		Question ID : 630680777241 Status : Answered
		Chosen Option : A
Q.2	वह व्यक्ति जो लोगों को मस्जिद में प्रार्थना करने (नमाज़ पढ़ने) के लिए बुलाता	है उसे कहा
Ans	जाता है। × A. पैगम्बर	
Alis		
	X B. हाजी	
	Х С. इमाम	
	৵ D. मुअज्ज़िन	
		Question ID : 630680571602
		Status : Answered
		Chosen Option : C
O 3	The bandwidth of a CRO is 0–20 MHz. What is the fastest rise time	of the sine wave
Q.J	that can be reproduced accurately?	of the Sile wave
Ans	X A. 20 ns	
	★ B. 35 ns	
	✓ C. 17.5 ns	
	X D. 70 ns	
	★ D. 70 ns	
	★ D. 70 ns	Question ID : 630680777300 Status : Answered
	★ D. 70 ns	Question ID : 630680777300 Status : Answered Chosen Option : C
	★ D. 70 ns	Status : Answered
Q.4	Specific gravity of the electrolyte is an indication of state of charg	Status : Answered Chosen Option : C
Q.4 Ans		Status : Answered Chosen Option : C
	Specific gravity of the electrolyte is an indication of state of charg is the specific gravity measured? X A. By using a calorimeter	Status : Answered Chosen Option : C
	Specific gravity of the electrolyte is an indication of state of charg is the specific gravity measured? X A. By using a calorimeter X B. By using a pH meter	Status : Answered Chosen Option : C
	Specific gravity of the electrolyte is an indication of state of charg is the specific gravity measured? X A. By using a calorimeter B. By using a pH meter C. By using a hydrometer	Status : Answered Chosen Option : C
	Specific gravity of the electrolyte is an indication of state of charg is the specific gravity measured? X A. By using a calorimeter X B. By using a pH meter	Status : Answered Chosen Option : C
	Specific gravity of the electrolyte is an indication of state of charg is the specific gravity measured? X A. By using a calorimeter B. By using a pH meter C. By using a hydrometer	Status : Answered Chosen Option : C
	Specific gravity of the electrolyte is an indication of state of charg is the specific gravity measured? X A. By using a calorimeter B. By using a pH meter C. By using a hydrometer	Status : Answered Chosen Option : C e of the battery. How Question ID : 630680777269 Status : Answered
	Specific gravity of the electrolyte is an indication of state of charg is the specific gravity measured? X A. By using a calorimeter B. By using a pH meter C. By using a hydrometer	Status : Answered Chosen Option : C e of the battery. How Question ID : 630680777269
Ans	Specific gravity of the electrolyte is an indication of state of charg is the specific gravity measured? X A. By using a calorimeter B. By using a pH meter C. By using a hydrometer	Status : Answered Chosen Option : C e of the battery. How Question ID : 630680777269 Status : Answered Chosen Option : C
Ans	Specific gravity of the electrolyte is an indication of state of charg is the specific gravity measured? X A. By using a calorimeter X B. By using a pH meter C. By using a hydrometer D. By using a barometer An AC source of peak value 20 V is connected in series with a silic resistance of 1000 Ω. Neglecting the forward resistance of the dio	Status : Answered Chosen Option : C e of the battery. How Question ID : 630680777269 Status : Answered Chosen Option : C con diode and a load
Ans	Specific gravity of the electrolyte is an indication of state of charg is the specific gravity measured? X A. By using a calorimeter X B. By using a pH meter C. By using a hydrometer D. By using a barometer An AC source of peak value 20 V is connected in series with a silic	Status : Answered Chosen Option : C e of the battery. How Question ID : 630680777269 Status : Answered Chosen Option : C con diode and a load
Ans	Specific gravity of the electrolyte is an indication of state of charg is the specific gravity measured? X A. By using a calorimeter X B. By using a pH meter C. By using a hydrometer D. By using a barometer An AC source of peak value 20 V is connected in series with a silic resistance of 1000 Ω. Neglecting the forward resistance of the diovalue of output voltage? A. 19.3 V	Status : Answered Chosen Option : C e of the battery. How Question ID : 630680777269 Status : Answered Chosen Option : C con diode and a load
Ans	Specific gravity of the electrolyte is an indication of state of charg is the specific gravity measured? X A. By using a calorimeter X B. By using a pH meter C. By using a hydrometer D. By using a barometer An AC source of peak value 20 V is connected in series with a silit resistance of 1000 Ω. Neglecting the forward resistance of the diovalue of output voltage? A. 19.3 V B. 10 V	Status : Answered Chosen Option : C e of the battery. How Question ID : 630680777269 Status : Answered Chosen Option : C con diode and a load
Ans	Specific gravity of the electrolyte is an indication of state of charg is the specific gravity measured? **A. By using a calorimeter **B. By using a pH meter **C. By using a hydrometer **D. By using a barometer **D. By using a barometer **An AC source of peak value 20 V is connected in series with a silic resistance of 1000 Ω. Neglecting the forward resistance of the diovalue of output voltage? **A. 19.3 V **B. 10 V **C. 0 V	Status : Answered Chosen Option : C e of the battery. How Question ID : 630680777269 Status : Answered Chosen Option : C con diode and a load
Ans	Specific gravity of the electrolyte is an indication of state of charg is the specific gravity measured? X A. By using a calorimeter X B. By using a pH meter C. By using a hydrometer D. By using a barometer An AC source of peak value 20 V is connected in series with a silit resistance of 1000 Ω. Neglecting the forward resistance of the diovalue of output voltage? A. 19.3 V B. 10 V	Status : Answered Chosen Option : C e of the battery. How Question ID : 630680777269 Status : Answered Chosen Option : C con diode and a load
Ans	Specific gravity of the electrolyte is an indication of state of charg is the specific gravity measured? **A. By using a calorimeter **B. By using a pH meter **C. By using a hydrometer **D. By using a barometer **D. By using a barometer **An AC source of peak value 20 V is connected in series with a silic resistance of 1000 Ω. Neglecting the forward resistance of the diovalue of output voltage? **A. 19.3 V **B. 10 V **C. 0 V	Status : Answered Chosen Option : C e of the battery. How Question ID : 630680777269 Status : Answered Chosen Option : C con diode and a load
Ans	Specific gravity of the electrolyte is an indication of state of charg is the specific gravity measured? **A. By using a calorimeter **B. By using a pH meter **C. By using a hydrometer **D. By using a barometer **D. By using a barometer **An AC source of peak value 20 V is connected in series with a silic resistance of 1000 Ω. Neglecting the forward resistance of the diovalue of output voltage? **A. 19.3 V **B. 10 V **C. 0 V	Status: Answered Chosen Option: C e of the battery. How Question ID: 630680777269 Status: Answered Chosen Option: C con diode and a load de, what is the peak



```
Q.12 Which of the following options does NOT represent a property of a soft ferromagnetic material?
     X A. It is used to make electromagnets.
       X B. It has a narrow hysteresis loop.
       X C. It can be easily magnetised.
        D. It has high coercivity.
                                                                                           Question ID: 630680777276
                                                                                                Status: Answered
                                                                                        Chosen Option : D
Q.13 30 litres of a mixture contains milk and water in the ratio 8:4. If 6 litres of this mixture
     is replaced by 6 litres of milk, the ratio of milk to water in the new mixture will be
Ans X A. 1:8

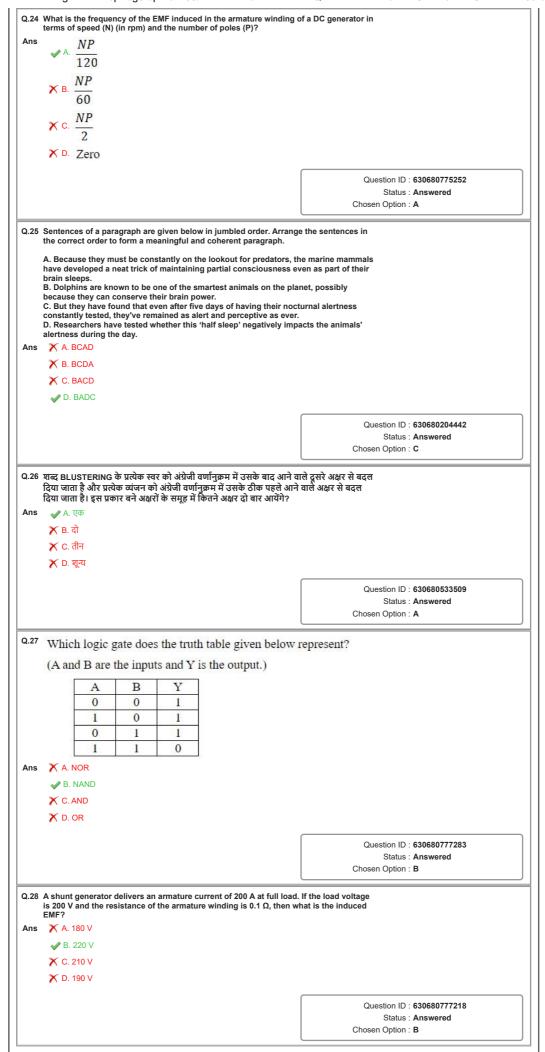
✓ B. 11:4

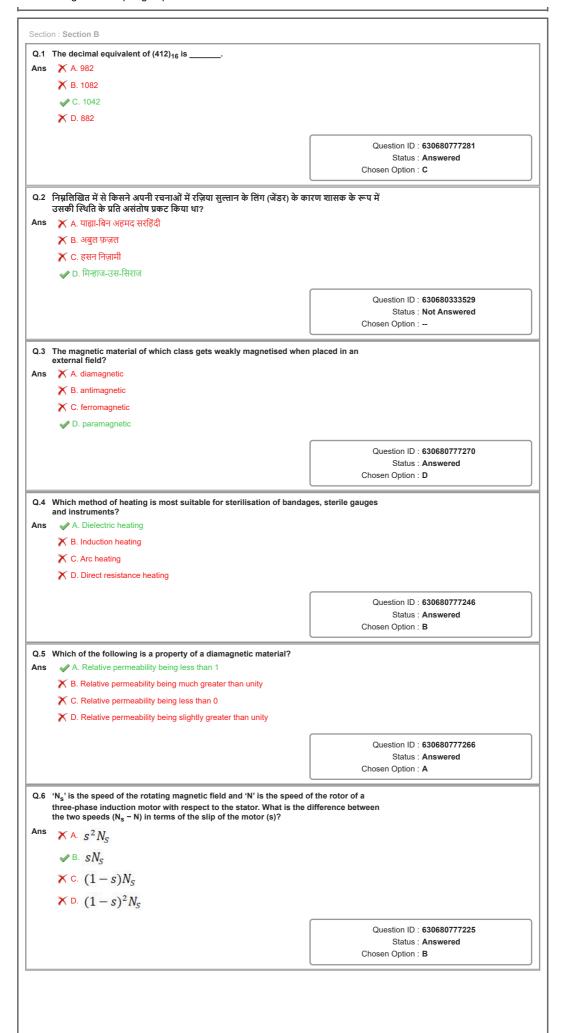
       X C. 11:8
       X D. 1:4
                                                                                           Question ID: 630680131489
                                                                                                Status: Answered
                                                                                        Chosen Option : B
Q.14 In March 2021, the Parliament passed the Constitution (Scheduled Castes) Order
     (Amendment) Bill, 2021. This bill was introduced to modify the list of Scheduled Castes in which state of India?
       🛹 A. Tamil Nadu
       X B. Kerala
       X C. Andhra Pradesh
       X D. Karnataka
                                                                                           Question ID: 630680116395
                                                                                                Status: Answered
                                                                                        Chosen Option : D
Q.15 Which of the following statements is/are true?
      1. An electric drive is simple, clean and reliable
     2. Electric drive is costlier in terms of initial as well as in maintenance cost.
Ans X A. Only 1
       X B. Only 2
       X C. Neither 1 nor 2
        D. Both 1 and 2
                                                                                           Question ID : 630680777235
                                                                                                Status: Answered
                                                                                        Chosen Option : D
Q.16 Select the most appropriate meaning of the given proverb.
      There is no garden without its weeds.
Ans X A. Searching for a perfect garden is a false attempt.
       X B. It is impossible to imagine a garden without weeds.
        C. There is no perfection; everybody and everything has faults
       X D. All gardens have some or the other kind of troubles
                                                                                           Question ID: 630680317849
                                                                                                Status : Answered
                                                                                        Chosen Option : B
Q.17 Which of the following types of motor does NOT possess inherent regenerative
     braking?
Ans X A. Separately excited DC motor
       X B. DC shunt motor
       X C. Three-phase induction motor
        D. DC series motor
                                                                                           Question ID : 630680777240
                                                                                                Status: Answered
                                                                                        Chosen Option : \boldsymbol{\mathsf{D}}
```

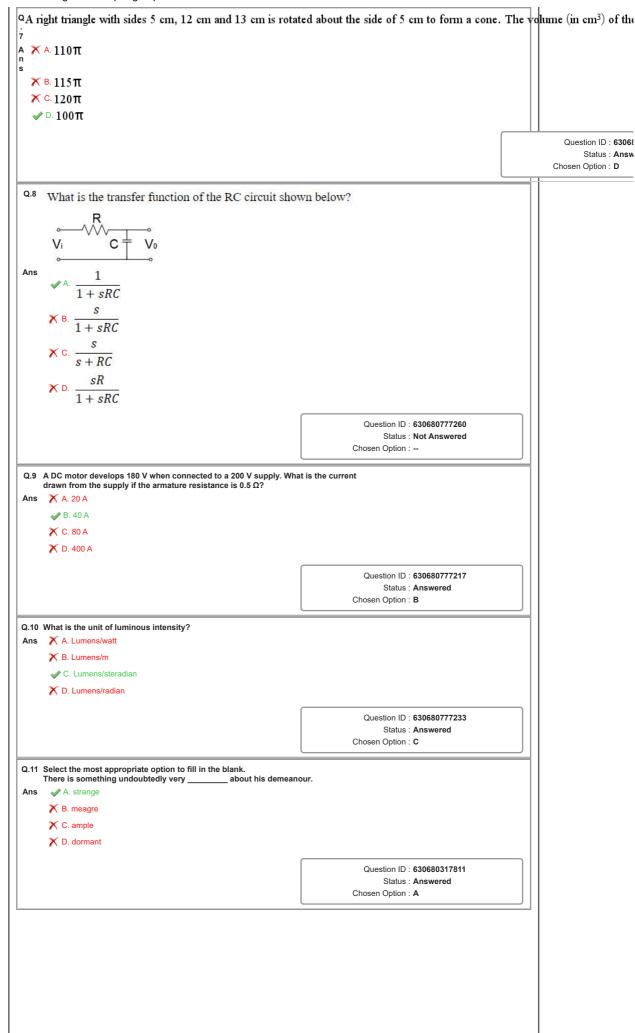
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Q.18 What will be the susceptance of a circuit if its impedance is (2 – j4) \Omega?
X B. 0.25 S
        X C. 0.4 S
        X D. 0.5 S
                                                                                                       Question ID: 630680777207
                                                                                                             Status: Answered
                                                                                                   Chosen Option : A
Q.19 What is the Boolean expression for two input (A and B) NOR gate?
Ans \checkmark A. \overline{A+B}
        \times B. A + B
        X C. AB
        \times D. \overline{A} + \overline{B}
                                                                                                       Question ID: 630680777279
                                                                                                             Status: Answered
                                                                                                    Chosen Option : A
Q.20 Which of the following statements is/are true?
      1. The O. C. test on a transformer, conducted on the LV side of the transformer, gives the core loss when the LV side is applied with its rated voltage.
       2. The S. C. test on a transformer, conducted on the HV side of the transformer, gives
      the full-load copper loss when the full-load current is allowed to flow through the
       windings.
Ans A. Both 1 and 2
        X B. Only 1
        X C. Only 2
        X D. Neither 1 nor 2
                                                                                                       Question ID: 630680777228
                                                                                                            Status: Answered
                                                                                                   Chosen Option : A
Q.21 Based on the English alphabetical order, three of the following four letter-clusters are alike in a certain way and thus form a group. Which is the one that does not belong to
      that group?
Ans X A. TQO
        X B. HEC
        X C. NKI

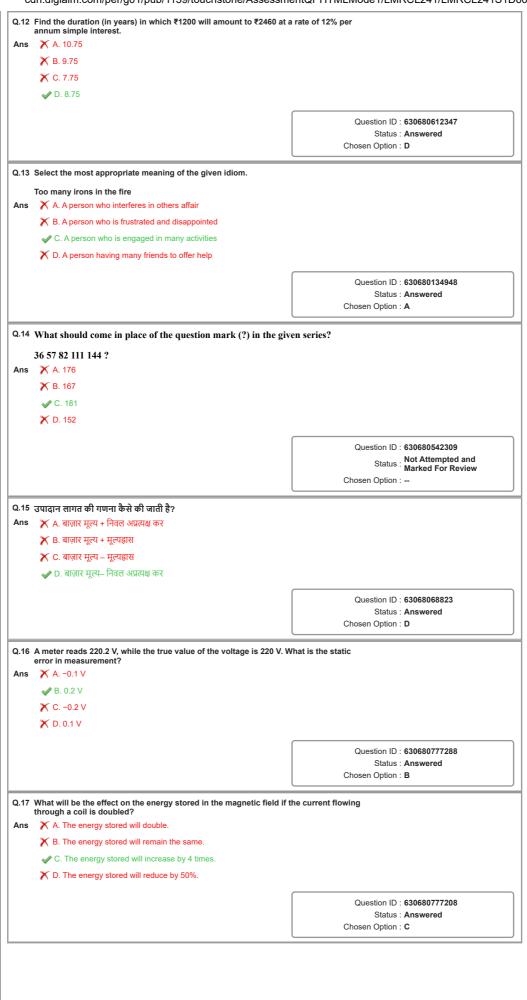
✓ D. KGD

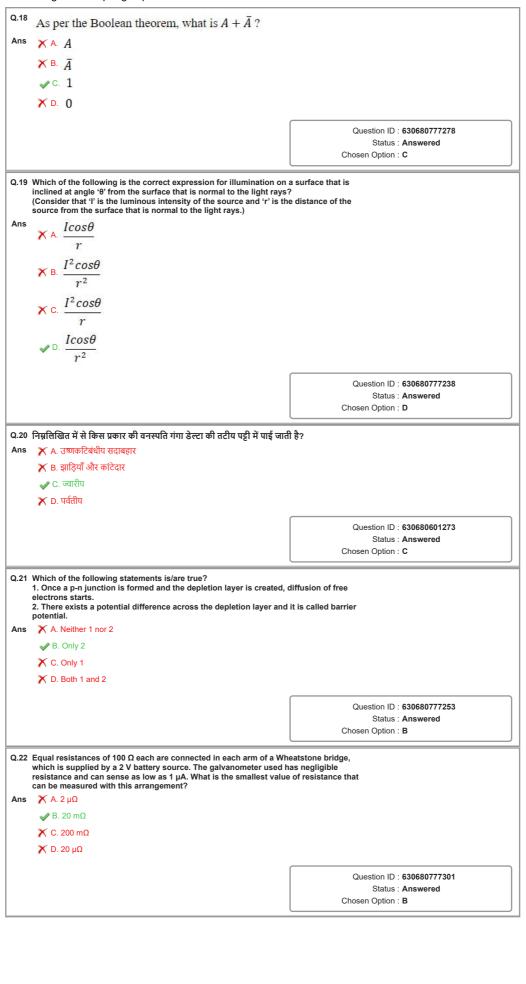
                                                                                                       Question ID: 630680360177
                                                                                                             Status : Answered
                                                                                                   Chosen Option : D
Q.22 The HCF of \frac{1}{3}, \frac{2}{5}, \frac{3}{7} and \frac{4}{7} is:
                                                                                                       Question ID: 630680630073
                                                                                                             Status: Answered
                                                                                                   Chosen Option : D
Q.23 Which day is observed as Social Empowerment Day to commemorate Mahad Satyagraha undertaken by Dr. Baba Saheb Ambedkar in Kolaba District in
      Maharashtra?
Ans X A. 20 April
        X B. 20 February
         C. 20 March
        X D. 20 January
                                                                                                       Question ID: 63068087069
                                                                                                             Status: Not Answered
                                                                                                   Chosen Option : --
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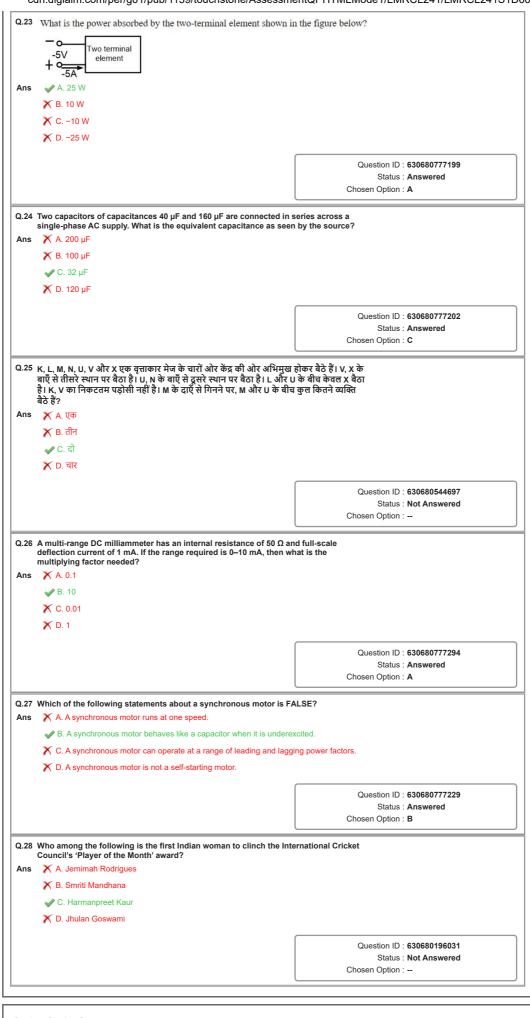




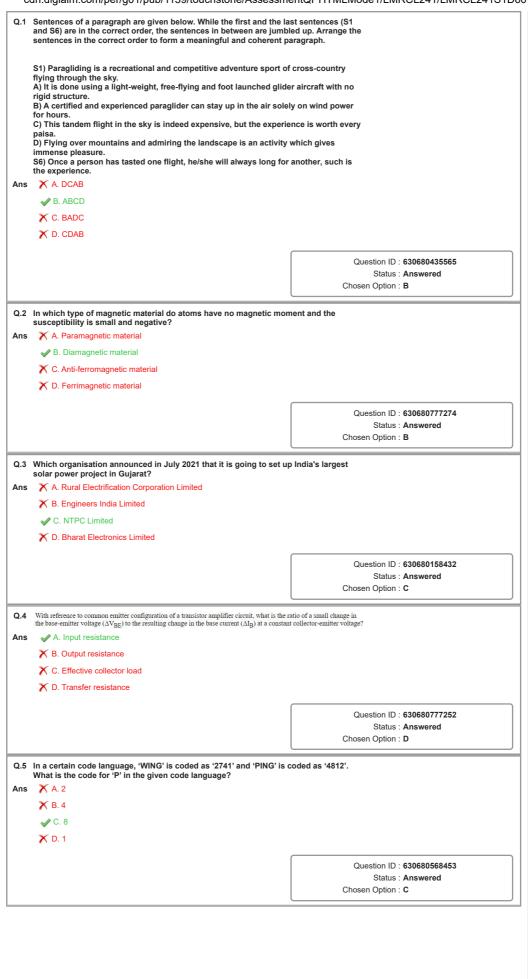








Section : Section C



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Q.6 The voltage and the current of an impedance in a single-phase AC circuit are as given below.
       v = 50 \sin (314t - 80^{\circ})
      i = 5 \sin (314t - 20^{\circ})
      What is the phase relationship between the two?
Ans X A. i lags v by 60°
        X B. i lags v by 100°
        X C. i leads v by 100°

✓ D. i leads v by 60°

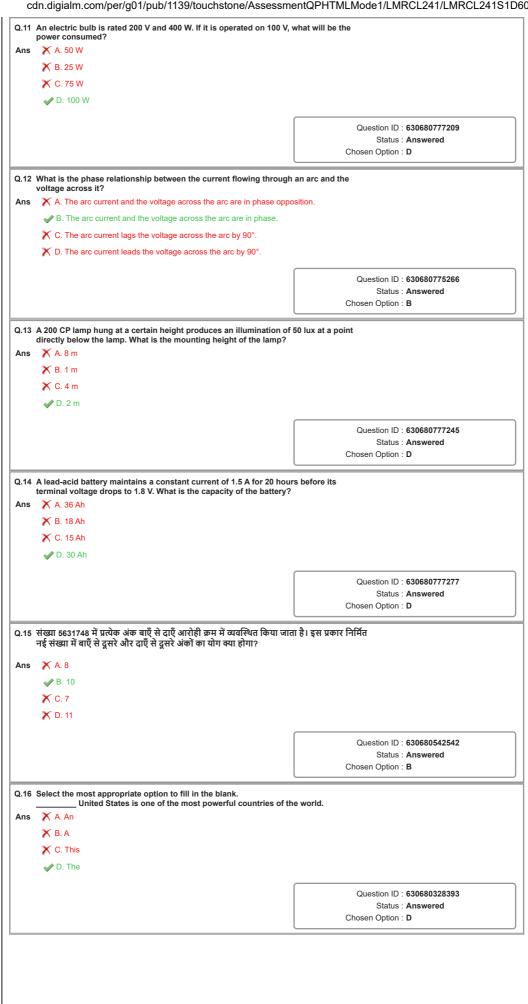
                                                                                                   Question ID: 630680777205
                                                                                                        Status: Answered
                                                                                               Chosen Option : \boldsymbol{\mathsf{D}}
     with reference to the CRO, which of the following statements is/are true?

    Gain of the vertical amplifier determines the smallest signal that the oscilloscope can satisfactorily reproduce on the screen.

      2. Vertical sensitivity of the oscilloscope is the smallest deflection factor that can be
      selected with a rotary switch.
Ans X A. Neither 1 nor 2
        X C. Only 2
        X D. Only 1
                                                                                                   Question ID: 630680777295
                                                                                                        Status: Answered
                                                                                               Chosen Option : B
Q.8 भारतीय पंचांग में, वर्ष को छह द्वैमासिक ऋतुओं में बाँटा गया है। निम्नलिखित विकल्पों में से उस ऋतु की
      पहचान करें जो पारंपरिक सावन-भादो महीनों में आती है।
Ans
      🗙 A. शिशिर
        🗙 в. शरद
        🗶 C. ग्रीष्म
         🥒 D. वर्षा
                                                                                                   Question ID: 630680115710
                                                                                                        Status: Answered
                                                                                               Chosen Option : D
Q.9 Identify the type of motor whose toque-current characteristic is as shown in the figure below.
       X A. Cumulatively compounded motor
        B. Shunt motor
        X C. Differentially compounded motor
        X D. Series motor
                                                                                                   Question ID: 630680775238
                                                                                                        Status: Answered
                                                                                               Chosen Option : B
Q.10 The speed of a DC series motor is controlled by using a diverter across its field
      winding. Without the diverter, the speed of the motor is 1000 rpm. What will be its speed when the resistance of the diverter is equal to the resistance of the field
      winding?
Ans X A. 4000 rpm
        X B. 1000 rpm
        X C. 500 rpm

✓ D. 2000 rpm

                                                                                                   Question ID: 630680777220
                                                                                                        Status: Answered
                                                                                               Chosen Option : D
```



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Q.17 What is the full form of 'MSCP' with reference to illumination?
Ans X A. Mean Spherical Candela Power
        X B. Maximum Spherical Candle Power
        C. Mean Spherical Candle Power
        X D. Maximum Spherical Candela Power
                                                                                               Question ID: 630680777236
                                                                                                    Status: Answered
                                                                                           Chosen Option : C
      As per De Morgan's theorem, \overline{A}. \overline{B} is equal to
Ans \times A. A + B
        \checkmark B. \overline{A} + \overline{B}
       \times c. \overline{A+B}
        X D. AB
                                                                                              Question ID: 630680777280
                                                                                                    Status: Answered
                                                                                           Chosen Option : B
Q.19 What is the simplified form of the Boolean expression given by
       Y = (\bar{A} + B)(A + B)?
Ans X \land Y = A
       \checkmark B. Y = B
       \times c. Y = (\bar{A}B)
       X D. Y = (A + B)
                                                                                              Question ID: 630680777282
                                                                                                    Status: Answered
                                                                                           Chosen Option : B
Q.20 In a RS flip flop, when both the set and reset inputs are zero,, what are the outputs Q and \bar{Q}?
Ans \checkmark A. Q=1, \overline{Q}=1
       \times B. Q=0, \overline{Q}=1
       \times c. Q=0, \overline{Q}=0
       \times D. Q = 1, \overline{Q} = 0
                                                                                              Question ID: 630680777285
                                                                                                    Status : Answered
                                                                                           Chosen Option : B
Q.21 The value of (0.\overline{37} + 0.\overline{47}) is:
Ans X A. \frac{28}{90}
       \times C. \frac{28}{99}
        ✓ D. 28
                                                                                              Question ID: 630680218056
                                                                                                    Status : Answered
                                                                                           Chosen Option : D
Q.22 The armature winding of a DC generator is lap wound with 6 poles and delivers an armature current of 120 A to an external load. What is the current carried by the
      armature conductors?
Ans X A. 40 A
        X C. 60 A
        X D. 120 A
                                                                                               Question ID: 630680777216
                                                                                                    Status : Answered
                                                                                           Chosen Option : B
```

Q.23 A 4-pole DC machine has a wave-wound armature winding. How many parallel paths are present in the armature circuit?

Ans X A. 4

X B. 16 X C. 8

⊘ D. 2

Question ID: 630680777213 Status: Answered Chosen Option : D

Q.24 Which of the following private colleges was founded in Lahore under the aegis of the

Arya Samaj?

Ans A. The Dayanand Anglo Vedic College

🔀 B. The Saraswati Anglo Vedic College

X C. The Arya Samaj Anglo Vedic College

X D. The Samaj College

Question ID: 630680147269 Status: Not Answered Chosen Option : --

Q.25 What is 'X2' in the block diagram shown below?

$$X_1$$
 G X_2

Ans
$$\times$$
 A. $X_1(1-G)$

$$\times$$
 B. $X_1(1-G)G$

$$\times$$
 c. $X_1(1+G)$

Question ID: 630680777261 Status: Answered Chosen Option : D

Q.26 Find the value of P and Q for which the given system of equations has infinitely many solutions

$$(P+Q)x - (P+Q+4)y = 5P + Q$$

$$\checkmark$$
 A. $P = \frac{-1}{2}$, $Q = \frac{1}{2}$

$$\times$$
 B. P = $\frac{1}{2}$, Q = -7

✓ A.
$$P = \frac{-1}{3}$$
, $Q = 7$
× B. $P = \frac{1}{3}$, $Q = -7$
× C. $P = \frac{-1}{3}$, $Q = \frac{-7}{2}$
× D. $P = \frac{-1}{3}$, $Q = \frac{7}{2}$

$$\times$$
 D. $P = \frac{-1}{3}$, $Q = \frac{7}{2}$

Question ID: 630680541181 Status: Not Answered

Chosen Option : --

Q.27 सांची स्तूप की कौन सी संरचना जातकों की विभिन्न घटनाओं और बुद्ध के जीवन को दर्शाती है?

Ans 🧳 A. तोरण

🗶 B. हर्मिका

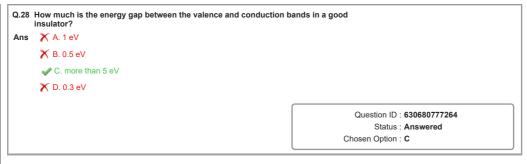
🗶 C. छत्री

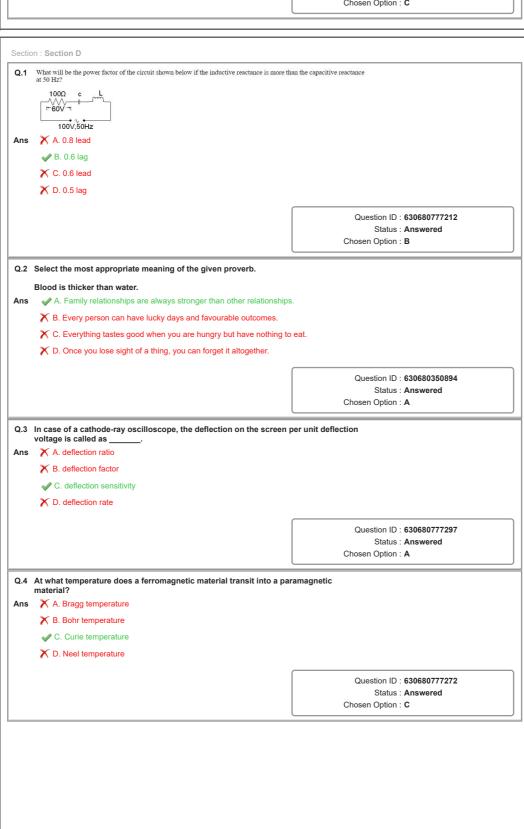
🗙 D. वेदिका

Question ID: 630680309130 Status: Answered

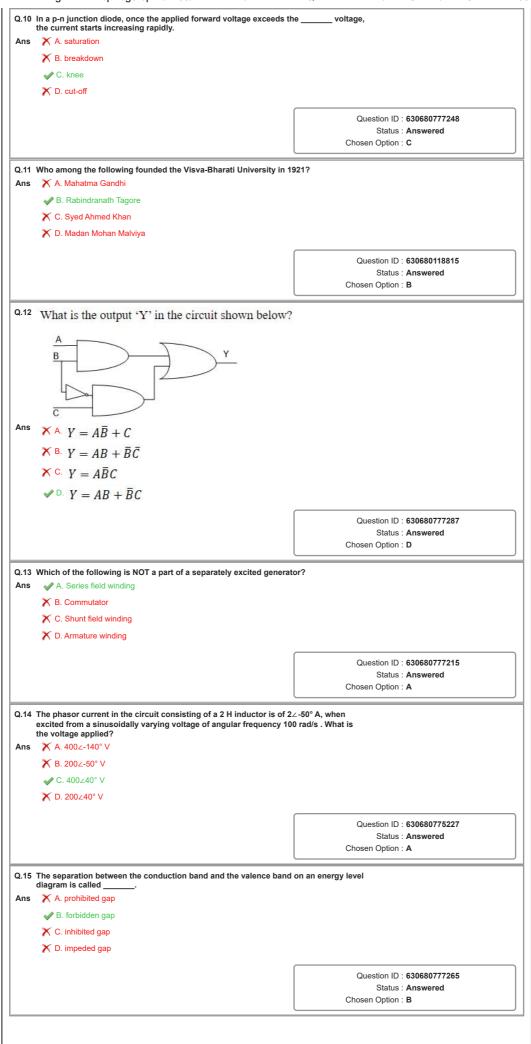
Chosen Option : A

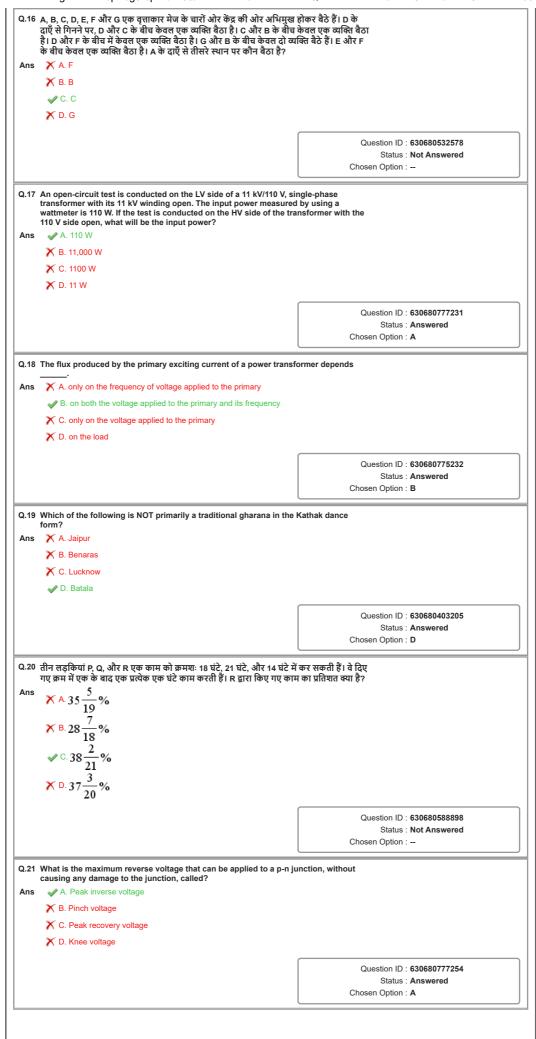
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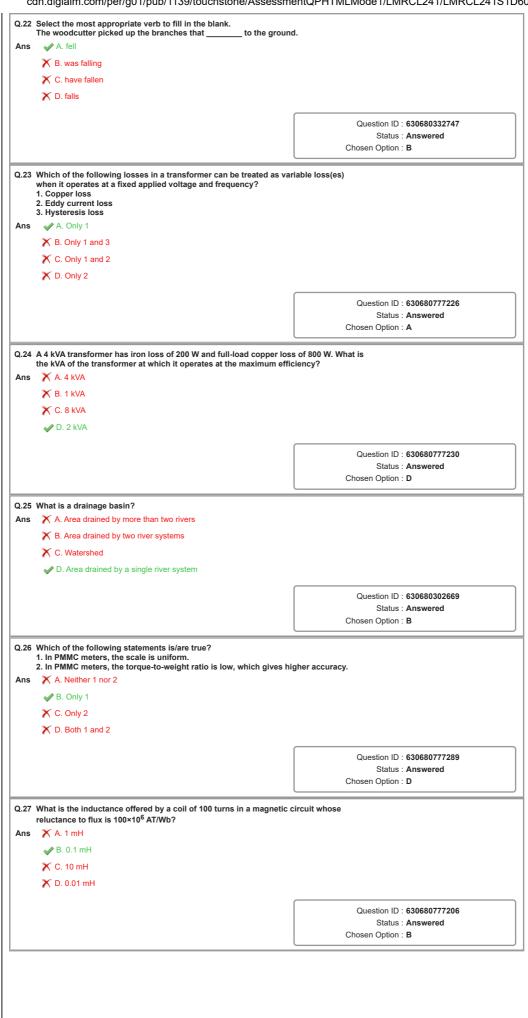




In a common collector arrangement, which of the following expressions gives the current amplification factor in terms of change in the emitter current, change in the collector current and change in the base current? Ans change in base current change in emitter current change in collector current change in emitter current x c. change in collector current change in base current change in emitter current change in base current Question ID: 630680777256 Status: Answered Chosen Option : D Q.6 Which of the following was the venue of 55th National Cross-Country Championship 2021? B. Chandigarh X C. Ludhiana X D. Patiala Question ID: 630680134096 Status: Not Answered Chosen Option : -Q.7 Which of the following expressions is correct with reference to dielectric heating? [V is the voltage applied to the dielectric] Ans \times B. Heating \propto V³ × c. Heating ∝ V \times D. Heating $\propto \sqrt{V}$ Question ID: 630680777244 Status: Answered Chosen Option : A Q.8 A moving-coil instrument has a controlling torque of 45×10^{-6} N-m when the deflection of the pointer is 90° . What will be the controlling torque produced when the deflection is 120° ? Ans \checkmark A. 60×10^{-6} N-m \times B. 30 × 10⁻⁶ N-m \times c. 45×10^{-6} N-m \times D. 120×10^{-6} N-m Question ID: 630680777296 Status: Answered Chosen Option : A Q.9 Solve the following equations for a, b and c. a + 4b + 3c = -5 3a + 2b - 3c = 4 -3a + 8b + 7c = -7 Ans $A = -1, b = \frac{1}{2}, c = -2$ \times B. a = -3, b = -4, c = 2 \times c. a = 2, b = -1, c = 3 \nearrow D. $a = \frac{1}{4}$, b = -2, c = 1Question ID : 630680517602 Status: Answered Chosen Option : A



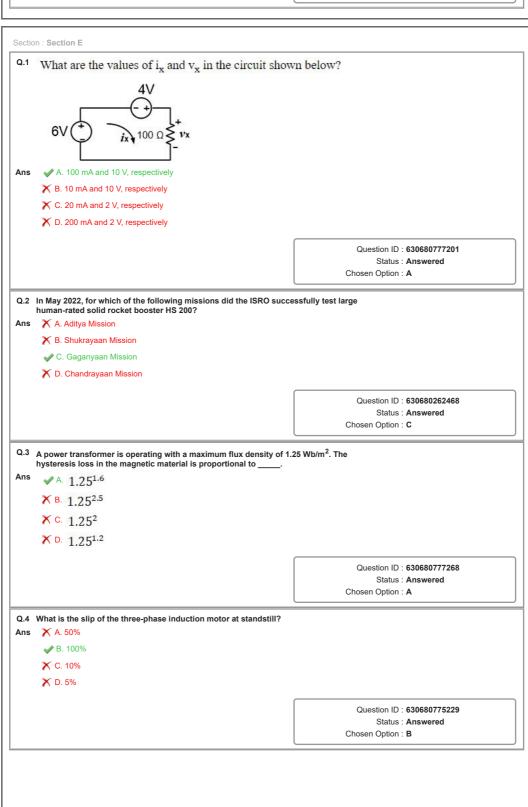




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Q.28 What will come in the place of the question mark (?) in the following equation if '+' and '–' are interchanged and '+' are interchanged? 3 \div 88 \times 2 - 130 + 40 = ?
       X A. 220
          X B. 224
          X C. 198

✓ D. 222

                                                                                                                            Question ID: 630680404380
                                                                                                                                   Status : Answered
                                                                                                                       Chosen Option : D
```



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Q.5 In a common base connection, the emitter current is 1mA. If the emitter circuit is open, the collector current is 100 \muA and current amplification factor is 0.9. What will be the
      total collector current?
     X A. 100 mA
        X B. 10 mA
        X C. 0.1 mA

✓ D. 1 mA

                                                                                                  Question ID: 630680777251
                                                                                                        Status : Answered
                                                                                               Chosen Option : D
Q.6 In which century was Sikhism founded?
Ans X A. 16<sup>th</sup> century
        X B. 14<sup>th</sup> century
       X C. 13<sup>th</sup> century

✓ D. 15<sup>th</sup> century

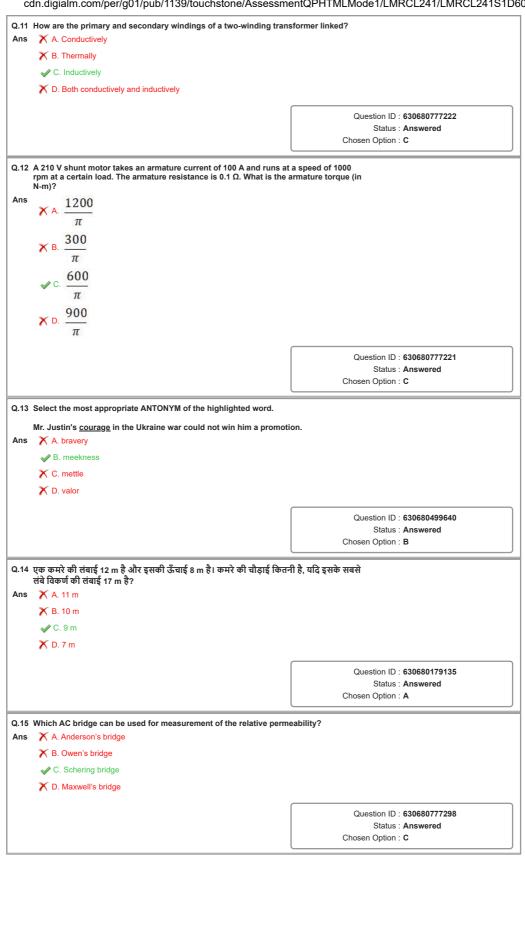
                                                                                                  Question ID: 63068087331
                                                                                                        Status: Answered
                                                                                               Chosen Option : C
Q.7 Which of the following statements with reference to electrodynamometer wattmeters
      1. Electrodynamometer wattmeters have a low torque-to-weight ratio and hence, they
      have low sensitivity.
      2. Low torque-to-weight ratio gives increased frictional losses.
Ans X A. Only 1
        X C. Neither 1 nor 2
        X D. Only 2
                                                                                                  Question ID: 630680777293
                                                                                                        Status : Answered
                                                                                               Chosen Option : B
Q.8 In a series resonant circuit, the power delivered to the load at resonance is 50 W. What will be the power delivered when the resultant reactance of the circuit is equal to the
      resistance?
     🗙 A. 100 W
        X B. 12.5 W
        X C. 50 W

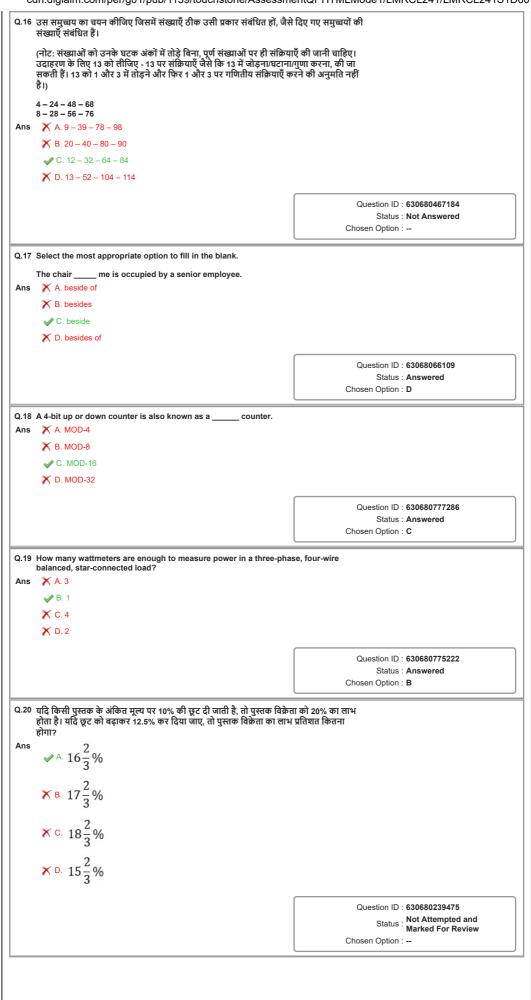
✓ D. 25 W

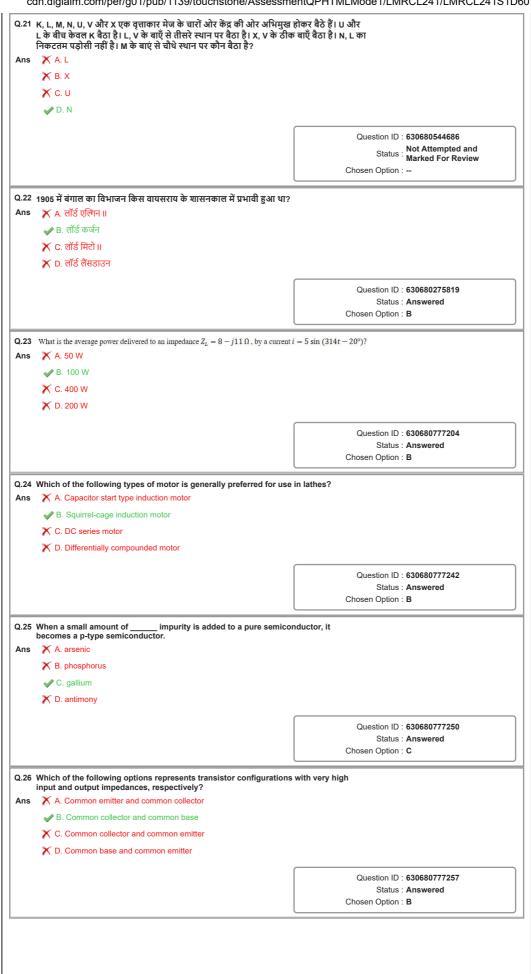
                                                                                                  Question ID: 630680775298
                                                                                                        Status : Answered
                                                                                               Chosen Option : D
Q.9 निम्नलिखित में से कौन-सी एजेंसी स्वयं सहायता समूहों का सहायता प्रदान करती है?
Ans 🗶 A. यूटीआई (UTI)
       🗙 B. एडीबी (ADB)
        🗶 C. आईसीआईसीआई (ICICI)

✓ D. डीडब्ल्यूसीआरए (DWCRA)

                                                                                                  Question ID: 630680314395
                                                                                                        Status: Not Answered
                                                                                               Chosen Option : --
Q.10 In a voltmeter a current of 1 \mu A gives a full scale deflection. What is the sensitivity of
      the meter?
Ans X A. 2 Ω/V
        X C. 2 MΩ/V
        X D. 1 k Ω/V
                                                                                                  Question ID: 630680777290
                                                                                                        Status: Answered
                                                                                               Chosen Option : B
```







cdn. digialm. com/per/g01/pub/1139/touchstone/AssessmentQPHTMLMode1/LMRCL241/LMRCL241S1D607/1715842486767...Q.27 At what power factor of the load does zero regulation occur in a single-phase transformer, irrespective of magnitude of the load on the transformer? (Consider that ' R_{eq} ' is the equivalent resistance; ' X_{eq} ' is the equivalent reactance and ' Z_{eq} ' is the equivalent impedance of the transformer referred to the secondary.) \checkmark A. $\frac{X_{eq}}{Z_{eq}}$ leading imes B. $rac{R_{eq}}{X_{eq}}$ leading imes C. $rac{R_{eq}}{Z_{eq}}$ lagging \times D. $\frac{R_{eq}}{X_{eq}}$ lagging Question ID : 630680775220 Status · Answered Chosen Option : C Q.28 What is the overall transfer function of a negative feedback system whose forward path transfer function is G(s) and feedback transfer function is H(s)? \times A. $\frac{G(s)H(s)}{1+H(s)}$ \checkmark B. $\frac{G(s)}{1 + G(s)H(s)}$ \times c. $\frac{G(s)H(s)}{1+G(s)H(s)}$ \times D. $\frac{G(s)}{1+H(s)}$ Question ID : 630680777262 Status : Answered Chosen Option : ${\bf B}$