

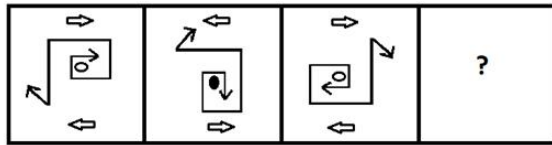
**OIL AND NATURAL GAS CORPORATION LIMITED**

Participant ID	
Participant Name	
Test Center Name	
Test Date	20/08/2022
Test Time	4:30 PM - 6:30 PM
Subject	Trade Certificate in Electrical

Section : General Aptitude and Reasoning

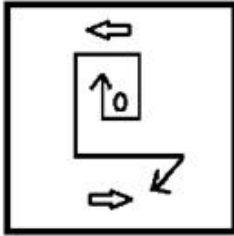
prepp
Your Personal Exam Guide

Q.1 Select the figure from among the given options that can replace the question mark (?) in the following series.

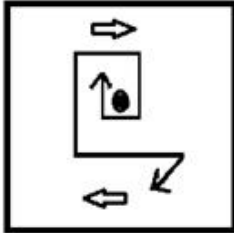


Ans

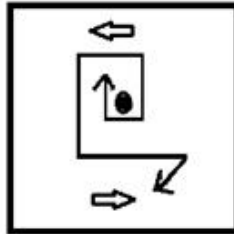
✗ 1.



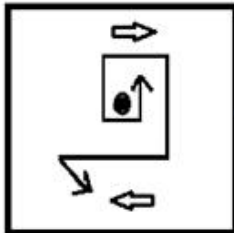
✗ 2.



✓ 3.



✗ 4.



Question ID : 889312110

Status : Answered

Chosen Option : 4

Q.2 નીચે આપેલા વિધાનો અને નિષ્કર્ષો ધ્યાનપૂર્વક વાંચો. ધારો કે વિધાનોમાં આપવામાં આવેલી માહિતી સાચી છે, ભલે જો તે સામાન્ય રીતે જાણીતા તથ્યો કરતાં જુદી તરી આવતી હોય, નક્કી કરો કે આપેલમાંથી કયું/કયા નિષ્કર્ષ તાર્કિક રીતે વિધાનોને અનુસરે છે.

વિધાનો:

1. કેટલાક ઇગુઆના યુનિકોર્ન છે.
2. બધા સ્કિન્ક્સ યુનિકોર્ન છે.
3. કેટલાક સેન્ટોર્સ સ્કિન્ક્સ છે.

નિષ્કર્ષો:

- I. કેટલાક સેન્ટોર્સ ઇગુઆના છે.
- II. કેટલાક ઇગુઆના સ્કિન્ક્સ છે
- III. કેટલાક સેન્ટોર્સ યુનિકોર્ન છે.

Ans

- ✗ 1. ફક્ત નિષ્કર્ષ I અને II અનુસરે છે
- ✗ 2. ફક્ત નિષ્કર્ષ I અનુસરે છે
- ✗ 3. ફક્ત નિષ્કર્ષ II અને III અનુસરે છે
- ✓ 4. ફક્ત નિષ્કર્ષ III અનુસરે છે

Question ID : 889312107

Status : Answered

Chosen Option : 2

Q.3 Select the option that will improve the underlined part of the given sentence. In case no improvement is needed, select 'No improvement'.

He is one of the most substantial leaders of our district.

Ans

- ✓ 1. prominent
- ✗ 2. salient
- ✗ 3. No improvement
- ✗ 4. pronounced

Question ID : 889312119

Status : Answered

Chosen Option : 1

Q.4 Which of the following is NOT a crypto currency-related provision listed in the 2022 Indian budget?

Ans ☒ 1. 30% fixed tax on exchange of all virtual assets.

☒ 2. 1% TDS on transfers above certain value.

☒ 3. Introduction of Central Bank Digital Currency in 2022-23.

☒ 4.

Permission to offset losses from virtual assets against other income.

Question ID : 889312104

Status : Answered

Chosen Option : 3

Q.5 भारतीय संविधान की निम्नलिखित में से कौन सी एक विशेषता नहीं है?

Ans ☒ 1. एकल नागरिकता

☒ 2. सरकार का संसदीय स्वरूप

☒ 3. सार्वभौमिक वयस्क मताधिकार (यूनिवर्सल एडल्ट फ्रैंचाइजी)

☒ 4. केंद्र और राज्यों के बीच शक्तियों के पृथक्करण में दृढ़ता

Question ID : 889312106

Status : Answered

Chosen Option : 3

Q.6 The area of a triangular park having sides 100 m, 170 m and 210 m is equal to $\frac{3}{22}$ of the area of a circular field. What is the perimeter (in m) of the circular field? (Take $\pi = \frac{22}{7}$)

Ans ☒ 1. 660

☒ 2. 968

☒ 3. 880

☒ 4. 1056

Question ID : 889312116

Status : Answered

Chosen Option : 3

Q.7 In a certain code language, 'CHARITY' is written as 'ZUBKTID' and 'HANDOUT' is written as 'UBOYNHI'. How will 'BENEFIT' be written in that language?

Ans ☒ 1. ABOXWTI

☒ 2. ZBOXWTH

☒ 3. BCPYXUI

☒ 4. ZANWVSH

Question ID : 889312109

Status : Answered

Chosen Option : 1

Q.8 Which of the following cell organelles does NOT contain DNA?

- Ans
- ☐ 1. Nucleus
 - ☐ 2. Mitochondria
 - ☒ 3. Lysosomes
 - ☐ 4. Chloroplasts

Question ID : 889312105

Status : Answered

Chosen Option : 2

Q.9 The All-India Muslim League (popularised as the Muslim League) was a political party established in British India in which year?

- Ans
- ☐ 1. 1912
 - ☐ 2. 1892
 - ☒ 3. 1906
 - ☐ 4. 1899

Question ID : 889312102

Status : Answered

Chosen Option : 1

Q.10 Refer to the following letter series and answer the question.

(Left) B U K E F M R E S I C X Z O W A Q D M H G U L (Right)

How many letters are there in the English alphabet between the letter that is sixth from the right end and the letter which is fifth from the left end of the given series?

- Ans
- ☐ 1. Three
 - ☒ 2. One
 - ☐ 3. Two
 - ☐ 4. Four

Question ID : 889312108

Status : Answered

Chosen Option : 4

Q.11 एक स्कूल में, प्रत्येक कक्षा में, कक्षाओं की कुल संख्या के आधे के बराबर विद्यार्थी हैं। विद्यार्थियों की कुल संख्या 2,312 है। यदि प्रत्येक विद्यार्थी दान के लिए ₹80 देता है, तो प्रत्येक कक्षा से एकत्र की गई कुल राशि (₹ में) क्या होगी?

- Ans
- ☐ 1. 2,640
 - ☐ 2. 2,560
 - ☐ 3. 2,800
 - ☒ 4. 2,720

Question ID : 889312112

Status : Answered

Chosen Option : 3

Q.12 Select the option that can be used as a one-word substitute for the given group of words.

A group of worshippers

- Ans
- ☒ 1. Horde
 - ☒ 2. Posse
 - ☒ 3. Crowd
 - ☒ 4. Congregation

Question ID : 889312118

Status : Answered

Chosen Option : 3

Q.13 The price of an item increases by 20% and then increases by 25%. The resulting price decreases by 42%. What is the net percentage increase/decrease in the original price of the item?

- Ans
- ☒ 1. Decrease, 13%
 - ☒ 2. Increase, 3%
 - ☒ 3. Increase, 13%
 - ☒ 4. Decrease, 3%

Question ID : 889312113

Status : Answered

Chosen Option : 3

Q.14 एक वस्तु का लागत मूल्य ₹320 है। एक व्यापारी वस्तु को उसके अंकित मूल्य पर 8% की छूट पर बेचकर 15% का लाभ प्राप्त करता है। यदि वह इसे अंकित मूल्य पर 5% की छूट देकर बेचता है, तो उसका लाभ प्रतिशत क्या होगा?

- Ans
- ☒ 1. 18%
 - ☒ 2. $18\frac{3}{4}\%$
 - ☒ 3. $16\frac{1}{2}\%$
 - ☒ 4. 16%

Question ID : 889312114

Status : Answered

Chosen Option : 3

Q.15 Sentences of a paragraph are given below in jumbled order. Arrange the sentences in the correct order to form a meaningful and coherent paragraph.

- A. Posted to Peshawar, 1300 miles away, Roberts proceeded up the Ganges to Benaras in a barge.
 B. In 1852, when Frederick Roberts arrived at Dum Dum as a young army officer, no railway existed in India.
 C. For the last 600 miles he was carried in a dooly, by eight men divided into teams of four bearers.
 D. Then he travelled over land to Meerut by horse.

- Ans** ☒ 1. B, A, D, C
☒ 2. B, C, D, A
☒ 3. D, C, A, B
☒ 4. C, D, A, B

Question ID : 889312117
 Status : Answered
 Chosen Option : 2

Q.16 જો '+'નો અર્થ 'બાદબાકી', '-'નો અર્થ 'ગુણાકાર', 'x'નો અર્થ 'ભાગાકાર', '+'નો અર્થ 'સરવાળો' થતો હોય, તો નિમ્નલિખિત અભિવ્યક્તિનું મૂલ્ય કેટલું છે?

$$15 \div 3 - 4 + 24 \times 6 = ?$$

- Ans** ☒ 1. 25
☒ 2. 31
☒ 3. 27
☒ 4. 23

Question ID : 889312111
 Status : Answered
 Chosen Option : 2

Q.17 1857ના બળવાની આગેવાની નીચેનામાંથી કોણે કરી હતી, જેની શરૂઆત ત્યારે થઈ હતી જ્યારે ભારતીય સૈનિકોએ તેમની ધાર્મિક સંવેદનાઓના ભંગ બદલ અંગ્રેજ અધિકારીઓ સામે બળવો પોકાર્યો હતો?

- Ans** ☒ 1. ભગત સિંહ
☒ 2. મંગળ પાંડે
☒ 3. સુબ્રહ્મચંદ્ર
☒ 4. રાજગુરુ

Question ID : 889312103
 Status : Answered
 Chosen Option : 1

Q.18 A car starts from X for Y and travels at 20 km/h. After 75 minutes, another car starts from X and travels at 40 km/h and reaches Y $1\frac{1}{2}$ hours before the first car. What is the distance (in km) between X and Y?

- Ans**
- ☐ 1. 120
 - ☐ 2. 150
 - ☐ 3. 100
 - ☒ 4. 110

Question ID : **889312115**
Status : **Answered**
Chosen Option : **2**

Comprehension:

Read the given passage and answer the questions that follow.

We heard a whirring of wings and a tiny bird zipped past us, spun around and hovered, his wings beating so rapidly that I could hardly see them.

'It's a hummingbird!' Russel said.

'How do you know?' He could see some light and colours, blurred images directly in front of him and that was all.

'I can hear it'

The bird zoomed around his head, put on its brakes in front of his face and hung there as if suspended by an invisible thread.

SubQuestion No : 19

Q.19 What impairment does Russel suffer from?

- Ans**
- ☐ 1. Hearing
 - ☐ 2. Speech
 - ☒ 3. Visual
 - ☐ 4. Mobility

Question ID : **889312121**
Status : **Answered**
Chosen Option : **1**

Comprehension:

Read the given passage and answer the questions that follow.

We heard a whirring of wings and a tiny bird zipped past us, spun around and hovered, his wings beating so rapidly that I could hardly see them.

'It's a hummingbird!' Russel said.

'How do you know?' He could see some light and colours, blurred images directly in front of him and that was all.

'I can hear it'

The bird zoomed around his head, put on its brakes in front of his face and hung there as if suspended by an invisible thread.

SubQuestion No : 20

Q.20 Select the option that defines what kind of passage it is.

- Ans**
- ☒ 1. Persuasive
 - ☒ 2. Expository
 - ☒ 3. Narrative
 - ☒ 4. Argumentative

Question ID : **889312122**

Status : **Answered**

Chosen Option : **2**

Section : Domain Knowledge

Q.1 Commutatively compound DC motor's speed can be controlled through:

- Ans**
- ☒ 1. varying supply voltage
 - ☒ 2. varying armature voltage
 - ☒ 3. varying armature current
 - ☒ 4. varying field current

Question ID : **889312155**

Status : **Answered**

Chosen Option : **3**

Q.2 In engineering drawing, a line which is divided into suitable number of equal parts or units, the first part of which is further sub-divided into small parts or sub-units of main unit is known as:

- Ans**
- ☒ 1. plain scale
 - ☒ 2. diagonal scale
 - ☒ 3. chord scales
 - ☒ 4. comparative scale

Question ID : **889312202**

Status : **Answered**

Chosen Option : **2**

Q.3 To find out information about heating, voltage regulation and efficiency of a transformer, which test is carried out?

- Ans**
- ☒ 1. Fall of potential test
 - ☒ 2. Murray loop test
 - ☒ 3. Swinburne Test
 - ☒ 4. Back-to-back test

Question ID : 889312145

Status : Answered

Chosen Option : 4

Q.4 The power factor of a rotary converter is:

- Ans**
- ☒ 1. lagging
 - ☒ 2. unity
 - ☒ 3. high
 - ☒ 4. leading

Question ID : 889312169

Status : Answered

Chosen Option : 1

Q.5 In DC machine windings, the number of armature conductors or elements separated by a coil on the commutator end is called:

- Ans**
- ☒ 1. front pitch
 - ☒ 2. resultant pitch
 - ☒ 3. back pitch
 - ☒ 4. short pitch

Question ID : 889312158

Status : Answered

Chosen Option : 2

Q.6 What is the main condition for grouping battery cells in series in order to get maximum current through load resistance?

- Ans**
- ☒ 1. The external resistance of each cell is higher than internal resistance.
 - ☒ 2. The external resistance of each cell is negligible.
 - ☒ 3. The internal resistance of each cell is negligible.
 - ☒ 4. The internal resistance of each cell is higher than external resistance.

Question ID : 889312134

Status : Answered

Chosen Option : 4

Q.7 The core of transformer is made up of:

- Ans
- ✓ 1. silicon steel
 - ✗ 2. iron
 - ✗ 3. copper
 - ✗ 4. steel

Question ID : 889312149

Status : Answered

Chosen Option : 1

Q.8 The water from the river stream is diverted to a channel through a diversion structure called:

- Ans
- ✗ 1. spillway
 - ✓ 2. weir
 - ✗ 3. forebay
 - ✗ 4. penstock

Question ID : 889312184

Status : Answered

Chosen Option : 4

Q.9 વિધમાં ઉપલબ્ધ શુદ્ધ વરાળ ક્ષેત્રો કરતાં ભીના વરાળના ક્ષેત્રો કેટલા ગણા વધારે છે?

- Ans
- ✗ 1. 40
 - ✗ 2. 25
 - ✓ 3. 20
 - ✗ 4. 30

Question ID : 889312188

Status : Answered

Chosen Option : 2

Q.10 In indicating instruments, the controlling torque acts in the opposite direction to the:

- Ans
- ✗ 1. gravity control torque
 - ✗ 2. spring control torque
 - ✓ 3. deflecting torque
 - ✗ 4. damping torque

Question ID : 889312142

Status : Answered

Chosen Option : 3

Q.11 Squirrel cage induction motors cannot be started by introducing external resistance in its rotor circuit because:

- Ans**
- ☒ 1. its starting torque will be reduced considerably.
 - ☒ 2. its rotor resistance is already high.
 - ☒ 3. it will operate at very low current .
 - ☒ 4. its rotor is permanently short-circuited.

Question ID : 889312161

Status : Answered

Chosen Option : 4

Q.12 The maximum operating voltage of high voltage underground cables is up to:

- Ans**
- ☒ 1. 33 kV
 - ☒ 2. 6.6 kV
 - ☒ 3. 11 kV
 - ☒ 4. 3.3 kV

Question ID : 889312125

Status : Answered

Chosen Option : 1

Q.13 In DC motors, the line which bisects the angle between two centres of the adjacent poles is called:

- Ans**
- ☒ 1. MNP
 - ☒ 2. ENP
 - ☒ 3. GNP
 - ☒ 4. DNP

Question ID : 889312157

Status : Answered

Chosen Option : 1

Q.14 Which impurity is added to a pure semiconductor to obtain a p-type semiconductor?

- Ans**
- ☒ 1. Trivalent
 - ☒ 2. Bivalent
 - ☒ 3. Octavalent
 - ☒ 4. Hexavalent

Question ID : 889312172

Status : Answered

Chosen Option : 1

Q.15 In alternators, the distribution factor is defined as the ratio of EMFs of:

- Ans
- ✓ 1. distributed winding to concentrated winding
 - ✗ 2. concentrated winding to full pitch winding
 - ✗ 3. full pitch winding to concentrated winding
 - ✗ 4. concentrated winding to Distributed winding

Question ID : 889312166

Status : Answered

Chosen Option : 4

Q.16 નીચેનામાંથી કઈ ફેશનમાં ઓટો ટ્રાન્સફોર્મરની પ્રાથમિક અને ગૌણ વિન્ડિંગ્સ જોડાયેલ છે?

- Ans
- ✗ 1. મેકેનિકલી અને મેગ્નેટિકલી
 - ✗ 2. મેકેનિકલી અને ઇલેક્ટ્રિકલી
 - ✗ 3. ઇલેક્ટ્રિકલી
 - ✓ 4. ઇલેક્ટ્રિકલી અને મેગ્નેટિકલી

Question ID : 889312148

Status : Answered

Chosen Option : 4

Q.17 In the transistor symbol, the arrowhead indicates the direction of:

- Ans
- ✗ 1. holes flow in collector region
 - ✗ 2. majority carriers flow in emitter region
 - ✓ 3. current flow in the emitter region
 - ✗ 4. electrons flow in base region

Question ID : 889312177

Status : Answered

Chosen Option : 3

Q.18 A 0.9 pf (lagging) load draws 120 A current from 230 V, single phase AC supply mains. Calculate the value of true power.

- Ans
- ✗ 1. 42.48 kW
 - ✓ 2. 24.84 kW
 - ✗ 3. 28.44 kW
 - ✗ 4. 24.48 kW

Question ID : 889312133

Status : Answered

Chosen Option : 2

Q.19 When the induction machine runs at a higher speed than the synchronous speed, the machine will then work as a/an:

- Ans
- ☒ 1. alternator
 - ☒ 2. synchronous motor
 - ☒ 3. synchronous generator
 - ☒ 4. induction generator

Question ID : 889312164

Status : Answered

Chosen Option : 4

Q.20 Instantaneous relays have operating time less than:

- Ans
- ☒ 1. 0.01 s
 - ☒ 2. 1 s
 - ☒ 3. 0.1 s
 - ☒ 4. 1.1 s

Question ID : 889312194

Status : Answered

Chosen Option : 3

Q.21 The silicon transistors are more widely used than germanium transistors because:

- Ans
- ☒ 1. they have higher forbidden energy band.
 - ☒ 2. they have smaller leakage current.
 - ☒ 3. they have smaller voltage drop.
 - ☒ 4. they have higher efficiency.

Question ID : 889312175

Status : Answered

Chosen Option : 3

Q.22 It is easy to remember how to use a fire extinguisher if you simply remember the acronym:

- Ans
- ☒ 1. PASS
 - ☒ 2. PAST
 - ☒ 3. PASU
 - ☒ 4. PASH

Question ID : 889312123

Status : Answered

Chosen Option : 1

Q.23 The electron gun of a Cathode Ray Oscilloscope has:

- Ans
- ☒ 1. electrostatic focusing of the electron beam
 - ☒ 2. indirectly heated cathode and control grid
 - ☒ 3. very high input impedance
 - ☒ 4. florescent screen

Question ID : 889312181

Status : Answered

Chosen Option : 4

Q.24 The main function of a commutator in a DC generator is:

- Ans
- ☒ 1. to convert AC into DC.
 - ☒ 2. to rotate the rotor.
 - ☒ 3. to make output voltage and current constant.
 - ☒ 4. to carry the current from brushes to stator.

Question ID : 889312152

Status : Answered

Chosen Option : 1

Q.25 The magnitude of the induced EMF and the direction of the induced current in the rotor conductor of an induction motor is given by:

- Ans
- ☒ 1. Faraday's law and Fleming's left-hand rule
 - ☒ 2. Lenz's law and Faraday's law
 - ☒ 3. Kirchhoff's laws and Fleming's left-hand rule
 - ☒ 4. Faraday's law and Fleming's right-hand rule

Question ID : 889312162

Status : Answered

Chosen Option : 2

Q.26 When two equal and opposite forces having different lines of action tend to cause angular distortion in a body, the forces applied are known as:

- Ans
- ☒ 1. tensile forces
 - ☒ 2. internal and external forces
 - ☒ 3. shear forces
 - ☒ 4. compressive forces

Question ID : 889312201

Status : Answered

Chosen Option : 3

Q.27 Which of the following is variable loss in DC generators?

- Ans
- ✓ 1. Interpole winding losses
 - ✗ 2. Air friction of rotating armature
 - ✗ 3. Brush friction
 - ✗ 4. Shunt field losses

Question ID : 889312154

Status : Answered

Chosen Option : 1

Q.28 The wind speed at which a wind turbine starts delivering shaft power is called:

- Ans
- ✗ 1. rated wind speed
 - ✗ 2. furling wind speed
 - ✗ 3. mean wind speed
 - ✓ 4. cut-in-speed

Question ID : 889312187

Status : Answered

Chosen Option : 3

Q.29 In DC machines, laminations are used in armature to reduce:

- Ans
- ✓ 1. eddy current loss
 - ✗ 2. size
 - ✗ 3. hysteresis loss
 - ✗ 4. humming sound

Question ID : 889312150

Status : Answered

Chosen Option : 1

Q.30 In circuit a breaker, a contact assembly consists of moving contacts which move inside the fixed contacts. This type of contact is called:

- Ans
- ✗ 1. finger contact
 - ✓ 2. tulip contact
 - ✗ 3. butt contact
 - ✗ 4. wedge contact

Question ID : 889312197

Status : Answered

Chosen Option : 3

Q.31 The equipment which essentially heats feed water is called:

- Ans
- ✓ 1. economiser
 - ✗ 2. superheater
 - ✗ 3. boiler
 - ✗ 4. feed water preheater

Question ID : 889312185
Status : Answered
Chosen Option : 1

Q.32 In a fuse, the rms value of the first loop of the fault current is called:

- Ans
- ✓ 1. prospective current
 - ✗ 2. cut-off current
 - ✗ 3. pre-arcing current
 - ✗ 4. fusing current

Question ID : 889312182
Status : Answered
Chosen Option : 4

Q.33 The maximum efficiency of full wave rectification is:

- Ans
- ✗ 1. 90.2%
 - ✓ 2. 81.2%
 - ✗ 3. 86.2%
 - ✗ 4. 79.2%

Question ID : 889312174
Status : Answered
Chosen Option : 2

Q.34 Why are core transformers preferred over shell type transformers for high voltages?

- Ans
- ✓ 1. They have more space for insulation.
 - ✗ 2. Their frequency is high.
 - ✗ 3. They can transform high voltages.
 - ✗ 4. Their transformation ratio is very high.

Question ID : 889312147
Status : Answered
Chosen Option : 4

Q.35 A synchronous machine not driving any mechanical load and working on leading power factor is called:

- Ans ☒ 1. synchronous condenser
☒ 2. synchronous inductor
☒ 3. synchronous generator
☒ 4. synchronous capacitor

Question ID : 889312168

Status : Answered

Chosen Option : 1

Q.36 एक परमाणु में, यदि कुछ अतिरिक्त ऊर्जा दी जाती है, तो इलेक्ट्रॉन उच्च कक्षा में चला जाता है। ऐसे परमाणु को _____ की अवस्था में कहा जाता है।

- Ans ☒ 1. तीव्र गति
☒ 2. ऊर्जीकरण
☒ 3. उत्तेजन
☒ 4. वर्धन

Question ID : 889312173

Status : Answered

Chosen Option : 3

Q.37 In gasification, heating of biomass with about one-third of oxygen is necessary for complete combustion. This combustion produces a mixture of carbon dioxide and hydrogen gas known as:

- Ans ☒ 1. methane gas
☒ 2. bio-gas
☒ 3. syngas
☒ 4. carbon monoxide

Question ID : 889312189

Status : Answered

Chosen Option : 2

Q.38 In pure metals, when the temperature increases, its:

- Ans ☒ 1.
 resistance increases and temperature co-efficient becomes positive.
☒ 2.
 resistance decreases and temperature co-efficient becomes negative.
☒ 3.
 resistance increases and temperature co-efficient becomes negative.
☒ 4.
 resistance decreases and temperature co-efficient becomes positive.

Question ID : 889312127

Status : Answered

Chosen Option : 1

Q.39 The total solar radiation on horizontal surface is often referred to as:

- Ans
- ☐ 1. irradiation radiation
 - ☐ 2. beam radiation
 - ☐ 3. diffuse radiation
 - ☒ 4. global radiation

Question ID : 889312186
Status : Answered
Chosen Option : 3

Q.40 The current drawn by an induction motor when running at no load is generally:

- Ans
- ☐ 1. demagnetising current
 - ☒ 2. magnetising current
 - ☐ 3. very low current
 - ☐ 4. inrush current

Question ID : 889312163
Status : Answered
Chosen Option : 2

Q.41 On which factor does the development of maximum power in a synchronous motor depend?

- Ans
- ☐ 1. Rotor speed
 - ☒ 2. Supply voltage of rotor excitation
 - ☐ 3. Output current
 - ☐ 4. Minimum value of coupling angle

Question ID : 889312167
Status : Answered
Chosen Option : 4

Q.42 In carbon composition resistance, the silver band represents:

- Ans
- ☐ 1. $\pm 20\%$ tolerance
 - ☐ 2. $\pm 25\%$ tolerance
 - ☐ 3. $\pm 5\%$ tolerance
 - ☒ 4. $\pm 10\%$ tolerance

Question ID : 889312171
Status : Answered
Chosen Option : 4

Q.43 If the supply frequency and voltage of a three phase induction motor is reduced to half:

- Ans**
- ☐ 1. torque of motor decreases
 - ☐ 2. motor starts hunting
 - ☐ 3. speed of motor decreases
 - ☒ 4. maximum torque of motor remains constant

Question ID : **889312159**

Status : **Answered**

Chosen Option : **2**

Q.44 In a relay, the time during which the stored operating energy is dissipated after the characteristic quantity has been suddenly restored from a specified value to the value which it had at the initial position of the relay is called:

- Ans**
- ☐ 1. operating time
 - ☐ 2. relay time
 - ☐ 3. reset time
 - ☒ 4. overshoot time

Question ID : **889312195**

Status : **Answered**

Chosen Option : **1**

Q.45 Which process does an electrovalent compound in water undergo for production of an equal number of positively and negatively charged ions?

- Ans**
- ☐ 1. Ionic dissociation
 - ☐ 2. Ionic separation
 - ☐ 3. Ionic decomposition
 - ☒ 4. Ionisation

Question ID : **889312135**

Status : **Answered**

Chosen Option : **3**

Q.46 The ratio of puncture strength to flashover voltage is known as:

- Ans**
- ☐ 1. string efficiency
 - ☐ 2. burn over factor
 - ☒ 3. safety factor
 - ☐ 4. flashover factor

Question ID : **889312191**

Status : **Answered**

Chosen Option : **3**

Q.47 In an induction relay, the inverse-time delay can be achieved by providing:

- Ans
- ✓ 1. permanent magnet
 - ✗ 2. electromagnet
 - ✗ 3. oil dashpot
 - ✗ 4. time limit switch

Question ID : 889312196

Status : Answered

Chosen Option : 2

Q.48 Determine the frequency of an alternating current, if current is represented by $I = 637.7 \sin 477t$.

- Ans
- ✓ 1. 76 Hz
 - ✗ 2. 67 Hz
 - ✗ 3. 57 Hz
 - ✗ 4. 50 Hz

Question ID : 889312131

Status : Answered

Chosen Option : 4

Q.49 The ratio of maximum demand of the group to sum of the individual maximum demands is called:

- Ans
- ✗ 1. demand factor
 - ✓ 2. coincidence factor
 - ✗ 3. diversity factor
 - ✗ 4. load factor

Question ID : 889312193

Status : Answered

Chosen Option : 3

Q.50 सल्फर हेक्साफ्लोराइड परिपथ वियोजक की बंद स्थिति में, संपर्क लगभग _____ के दाब में सल्फर हेक्साफ्लोराइड गैस से घिरे रहते हैं।

- Ans
- ✗ 1. 1.8 kg/cm^2
 - ✓ 2. 2.8 kg/cm^2
 - ✗ 3. 3.8 kg/cm^2
 - ✗ 4. 0.8 kg/cm^2

Question ID : 889312198

Status : Answered

Chosen Option : 2

Q.51 Which factor limits the maximum load that a power transformer can carry?

- Ans
- ☒ 1. Power ratio
 - ☒ 2. Temperature rise
 - ☒ 3. Voltage ratio
 - ☒ 4. Current ratio

Question ID : 889312146
Status : Answered
Chosen Option : 2

Q.52 Which of the following instruments can sense temperature?

- Ans
- ☒ 1. Photovoltaic meter
 - ☒ 2. Temperature senser
 - ☒ 3. Temperature meter
 - ☒ 4. Thermocouples

Question ID : 889312200
Status : Answered
Chosen Option : 2

Q.53 From the following, which multivibrator is a one-shot multivibrator?

- Ans
- ☒ 1. Multistable multivibrator
 - ☒ 2. Bistable multivibrator
 - ☒ 3. Astable multivibrator
 - ☒ 4. Monostable multivibrator

Question ID : 889312180
Status : Answered
Chosen Option : 3

Q.54 જ્યારે બે ચાર્જ વચ્ચેનો સંભવિત તફાવત ત્રીજા ચાર્જને વહેવા માટે દબાણ કરે છે, ત્યારે ત્રીજા ચાર્જને _____ કહેવામાં આવે છે:

- Ans
- ☒ 1. ઇલેક્ટ્રિક ફરંટ
 - ☒ 2. ઇલેક્ટ્રિક પાવર
 - ☒ 3. ઇલેક્ટ્રિક ઊર્જા
 - ☒ 4. ઇલેક્ટ્રિક વોલ્ટેજ

Question ID : 889312124
Status : Answered
Chosen Option : 1

Q.55 How many electrons does K-orbit of copper atom consist of?

- Ans
- ☒ 1. Eight
 - ☒ 2. Two
 - ☒ 3. Eighteen
 - ☒ 4. Thirty-eight

Question ID : 889312170
Status : Answered
Chosen Option : 2

Q.56 The mean of candle powers of a source of light in all directions in the horizontal plane passing through the luminous centre of the source of light is called:

- Ans
- ☒ 1. MHSCP
 - ☒ 2. MSCPP
 - ☒ 3. MSCP
 - ☒ 4. MHCP

Question ID : 889312139
Status : Answered
Chosen Option : 4

Q.57 શ્રી-ફેઝ કરંટ સ્રોત ઇન્વર્ટરને _____ પર ચલાવી શકાય છે:

- Ans
- ☒ 1. 150° મોડ
 - ☒ 2. 180° મોડ
 - ☒ 3. 90° મોડ
 - ☒ 4. 360° મોડ

Question ID : 889312183
Status : Answered
Chosen Option : 2

Q.58 What will be the voltage drop at the junction of metal carbon brush and commutator of a DC motor?

- Ans
- ☒ 1. 0.1 V
 - ☒ 2. 1.3 V
 - ☒ 3. 0.3 V
 - ☒ 4. 1.1 V

Question ID : 889312156
Status : Answered
Chosen Option : 4

Q.59 When a disc makes slow motion even at no load, then this error is termed as:

- Ans
- ☒ 1. frictional error
 - ☒ 2. creeping
 - ☒ 3. movement error
 - ☒ 4. speed error

Question ID : 889312143

Status : Answered

Chosen Option : 2

Q.60 A double cage rotor is the induction motor which has two cages in order to:

- Ans
- ☒ 1. reduce the current to a safe value.
 - ☒ 2. obtain high starting torque at a low starting current.
 - ☒ 3. enable the motor to start in the right direction.
 - ☒ 4. increase the rotor reactance.

Question ID : 889312160

Status : Answered

Chosen Option : 2

Q.61 The number of input variables which a NOT gate can have is:

- Ans
- ☒ 1. one
 - ☒ 2. zero
 - ☒ 3. six
 - ☒ 4. four

Question ID : 889312178

Status : Answered

Chosen Option : 1

Q.62 How can the polarity of DC generator be reversed?

- Ans
- ☒ 1. By reversing the armature current and field current.
 - ☒ 2. By increasing the armature current.
 - ☒ 3. By reversing the armature current.
 - ☒ 4. By reversing the field current.

Question ID : 889312151

Status : Answered

Chosen Option : 4

Q.63 The amount of light energy falling per second on a unit area held normally at a unit distance from a standard candle is called:

- Ans
- ☒ 1. apparent candle power
 - ☒ 2. lumen
 - ☒ 3. specific candle power
 - ☒ 4. zone candle power

Question ID : 889312138

Status : Answered

Chosen Option : 2

Q.64 Which transistor circuit arrangement is most widely used?

- Ans
- ☒ 1. Common collector
 - ☒ 2. Common emitter
 - ☒ 3. Common base
 - ☒ 4. Common base and emitter

Question ID : 889312176

Status : Answered

Chosen Option : 2

Q.65 Calculate the efficiency of a lamp of 230 V, 0.8 A and total flux of 3550 lm.

- Ans
- ☒ 1. 29.4%
 - ☒ 2. 19.3%
 - ☒ 3. 12.9%
 - ☒ 4. 16.2%

Question ID : 889312140

Status : Answered

Chosen Option : 4

Q.66 In a surface conduit wiring system, a cable drawn in to the conduit by means of a thin steel or GI wire is known as:

- Ans
- ☒ 1. pull wire
 - ☒ 2. conduit wire
 - ☒ 3. snake wire
 - ☒ 4. drawing wire

Question ID : 889312137

Status : Answered

Chosen Option : 3

Q.67 The ratio of the energy consumed during a given period to the energy which would have been used if the maximum demand had been maintained throughout the period is called:

- Ans
- ✓ 1. load factor
 - ✗ 2. diversity factor
 - ✗ 3. utility factor
 - ✗ 4. demand factor

Question ID : **889312192**
Status : **Answered**
Chosen Option : **3**

Q.68 The phase angle ϕ is positive if a practical circuit has:

- Ans
- ✗ 1. capacitive circuit
 - ✗ 2. inductive and capacitive circuit
 - ✓ 3. inductive circuit
 - ✗ 4. resistive circuit

Question ID : **889312132**
Status : **Answered**
Chosen Option : **4**

Q.69 Generally, an electrolytic capacitor provides:

- Ans
- ✓ 1. high value of capacitance
 - ✗ 2. small value of capacitance
 - ✗ 3. very low value of capacitance
 - ✗ 4. medium value of capacitance

Question ID : **889312129**
Status : **Answered**
Chosen Option : **2**

Q.70 Calculate the voltage across a resistor in a certain circuit having resistance of $78\ \Omega$ and carrying a current of 3.1 A ?

- Ans
- ✗ 1. 231.8 V
 - ✗ 2. 240 V
 - ✗ 3. 230 V
 - ✓ 4. 241.8 V

Question ID : **889312126**
Status : **Answered**
Chosen Option : **4**

Q.71 In the logic symbol of an inverter gate, the bubble (small circle) may be placed at output or input. This bubble represents:

- Ans**
- ☒ 1. NOR operation
 - ☒ 2. XNOR operation
 - ☒ 3. NAND operation
 - ☒ 4. NOT operation

Question ID : 889312179

Status : **Answered**

Chosen Option : 1

Q.72 કયા પ્રકારના સર્કિટ બ્રેકર્સમાં મુખ્યત્વે કરંટ ચોપીંગ થાય છે?

- Ans**
- ☒ 1. સલ્ફર હેક્સાફ્લોરાઈડ સર્કિટ બ્રેકર્સ
 - ☒ 2. એર-બ્રાસ્ટને સર્કિટ બ્રેકર્સ
 - ☒ 3. વેક્યુમ સર્કિટ બ્રેકર્સ
 - ☒ 4. ઓઇલ સર્કિટ બ્રેકર્સ

Question ID : 889312199

Status : **Answered**

Chosen Option : 3

Q.73 The illumination produced by a uniform source of 1 candle power on the inner surface of a sphere of 1 cm radius is called:

- Ans**
- ☒ 1. candle power
 - ☒ 2. lumens/sq foot
 - ☒ 3. phot
 - ☒ 4. luminous efficiency

Question ID : 889312141

Status : **Answered**

Chosen Option : 3

Q.74 At which condition is the efficiency of a transformer maximum?

- Ans**
- ☒ 1. Hysteresis loss = Eddy current loss
 - ☒ 2. Core loss = Hysteresis loss
 - ☒ 3. Core loss = Eddy current loss
 - ☒ 4. Core loss = Copper loss

Question ID : 889312144

Status : **Answered**

Chosen Option : 4

Q.75 For a sinusoidal waveform, the normal value of the form factor is:

- Ans
- ☐ 1. 0.707
 - ☐ 2. 0.637
 - ☐ 3. 1.414
 - ☒ 4. 1.11

Question ID : 889312130
Status : Answered
Chosen Option : 4

Q.76 The amount of power output a PV module produces at standard test conditions is called:

- Ans
- ☐ 1. solar watt
 - ☐ 2. standard watt
 - ☐ 3. photovoltaic watt
 - ☒ 4. peak watt

Question ID : 889312136
Status : Answered
Chosen Option : 3

Q.77 Which of the following Indian Electricity Rules pertaining to domestic installations is applicable to supply and use of energy at domestic consumer's premises?

- Ans
- ☐ 1. Rule 47
 - ☐ 2. Rule 57
 - ☒ 3. Rule 50
 - ☐ 4. Rule 54

Question ID : 889312190
Status : Answered
Chosen Option : 4

Q.78 How is the direction of current marked when the magnetic lines of force are clockwise?

- Ans
- ☐ 1. Dot
 - ☐ 2. Square
 - ☒ 3. Cross
 - ☐ 4. Arrow

Question ID : 889312128
Status : Answered
Chosen Option : 4

Q.79 A commercial alternator has:

- Ans
- ☒ 1. stationary armature flux and rotor flux
 - ☒ 2. rotating field and stationary armature
 - ☒ 3. rotating armature flux and rotor flux
 - ☒ 4. stationary armature and rotor

Question ID : 889312165

Status : Answered

Chosen Option : 2

Q.80 When field resistance of a DC shunt generator is increased beyond its critical value, then the generator:

- Ans
- ☒ 1. winding may be overheated.
 - ☒ 2. will not produce power output.
 - ☒ 3. will not build up voltage.
 - ☒ 4. will start making humming sound.

Question ID : 889312153

Status : Answered

Chosen Option : 3