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PSTCL AE

**Previous Year Paper
Electrical 6 Aug 2021
(Shift 1)**



Punjab Government Initiative under Ghar Ghar Rozgar



Participant ID	
Participant Name	
Test Center Name	
Test Date	06/08/2021
Test Time	8:30 AM - 10:30 AM
Subject	Assistant Engineer OT (Electrical)

Section : General Knowledge or Awareness

Q.1 Who among the following Indian diplomats was elected to the UN's Advisory Committee on Administrative and Budgetary Questions (ACABQ) in November 2020?

- Ans ☒ 1. Vidisha Maitra
- ☐ 2. Rudrendra Tandon
- ☐ 3. Venu Rajamony
- ☐ 4. Sangeeta Bahadur

Question ID : 59445946875
Status : Answered
Chosen Option : 2

Q.2 Which of these values represents the pH of an alkaline solution?

- Ans ☐ 1. 5
- ☐ 2. 2
- ☐ 3. 3
- ☒ 4. 10

Question ID : 59445946872
Status : Answered
Chosen Option : 4

Q.3 According to Khalifa Muhammad Hassan, author of History of Patiala, the ancient name of _____ was Bikramgarh.

- Ans
- ☒ 1. Ferozepur
 - ☒ 2. Pathankot
 - ☒ 3. Bathinda
 - ☒ 4. Barnala

Question ID : 59445946874
Status : Not Answered
Chosen Option : --

Q.4 Which of the following is a coastal State of India?

- Ans
- ☒ 1. Telangana
 - ☒ 2. Andhra Pradesh
 - ☒ 3. Chhattisgarh
 - ☒ 4. Jharkhand

Question ID : 59445946873
Status : Answered
Chosen Option : 2

Q.5 How many persons have been awarded Padma Vibhushan Award 2021?

- Ans
- ☒ 1. Seven
 - ☒ 2. Six
 - ☒ 3. Ten
 - ☒ 4. Four

Question ID : 59445946876
Status : Answered
Chosen Option : 1

Section : Reasoning or Numerical ability

Q.1 Which word CANNOT be formed using letters of the given word only as many times as each letter appears in the given word?

PANDEMIC

- Ans
- ☒ 1. MEDIA
 - ☒ 2. AMEND
 - ☒ 3. PIECE
 - ☒ 4. PANIC

Question ID : 59445946879
Status : Answered
Chosen Option : 3

Q.2 Select the number that can replace the question marks (?) in the following series.

102, 87, 74, 63, 54, ?

- Ans ☒ 1. 47
☒ 2. 45
☒ 3. 48
☒ 4. 44

Question ID : 59445946886
Status : Answered
Chosen Option : 1

Q.3 A + B means 'A is the wife of B';
A x B means 'A is husband of B',
A - B means 'A is the daughter of B',
If R x S- T + U, then how is U related to R?

- Ans ☒ 1. Mother-in-law
☒ 2. Father-in-law
☒ 3. Son-in law
☒ 4. Mother

Question ID : 59445946881
Status : Answered
Chosen Option : 2

Q.4 An electronic device rearranges words step by step in a particular order according to a set of rules. The device stops when the final result is obtained. In this case the device stops at Step III.
Input: General Gender Gasket Genial Gather
Step I: Gasket General Gender Genial Gather
Step II: Gasket Gather General Gender Genial
Step III: Gasket Gather Gender General Genial Following the same logic of the above example, which of the following will be the final step for the input given below?

Input: Whip Weary Wing Weigh Weather

- Ans ☒ 1. Step III
☒ 2. Step I
☒ 3. Step II
☒ 4. Step IV

Question ID : 59445946884
Status : Not Answered
Chosen Option : --

Q.5 Select the number that can replace the question marks (?) in the following series.

5, 12, 26, 47, 75, ?

- Ans
- ☒ 1. 105
 - ☒ 2. 110
 - ☒ 3. 103
 - ☒ 4. 100

Question ID : 59445946885
Status : Answered
Chosen Option : 2

Q.6 Seven people are standing in a line. N is standing immediately behind M but ahead of O. L is standing behind K and before M. P is standing before Q and is second from the end. Who is standing at the 4th position from the front?

- Ans
- ☒ 1. M
 - ☒ 2. O
 - ☒ 3. N
 - ☒ 4. L

Question ID : 59445946878
Status : Answered
Chosen Option : 3

Q.7 H is the brother of A. O is the sister of H. W is the brother of B. B is the daughter of A. How is W related to O?

- Ans
- ☒ 1. Son
 - ☒ 2. Uncle
 - ☒ 3. Niece
 - ☒ 4. Nephew

Question ID : 59445946880
Status : Answered
Chosen Option : 4

Q.8 K, M, O, Q and S are sitting around a circular table in a restaurant. K is to the left O who is second to the left of S. Q is not between K and S. Who is to the just right of M?

- Ans
- ☒ 1. K
 - ☒ 2. O
 - ☒ 3. Q
 - ☒ 4. S

Question ID : 59445946877
Status : Answered
Chosen Option : 1

Q.9 Two statements are followed by two conclusions numbered I and II. You have to consider these statements to be true, even if they seem at variance from commonly known facts. Decide which of the given conclusion(s) logically follow/s from the given statements.

Statements: 1. All men are handsome.
2. Some men are intelligent.

Conclusions: I. Some handsome are intelligent.
II. Some intelligent are men.

- Ans**
- ☒ 1. Neither conclusion I nor II follows.
 - ☒ 2. Only conclusion I follows.
 - ☒ 3. Both conclusions I and II follow.
 - ☒ 4. Only conclusion II follows.

Question ID : 59445946882
Status : Answered
Chosen Option : 3

Q.10 Two statements are followed by two conclusions numbered I and II. You have to consider these statements to be true, even if they seem at variance from commonly known facts. Decide which of the given conclusion(s) logically follow/s from the given statements.

Statements: 1. All chocolates are toffees.
2. All cakes are toffees.

Conclusions: I. Some cakes are chocolates.
II. No cake is chocolate.

- Ans**
- ☒ 1. Only conclusion I follows.
 - ☒ 2. Neither conclusion I nor II follows.
 - ☒ 3. Only conclusion II follows.
 - ☒ 4. Either conclusion I or II follows.

Question ID : 59445946883
Status : Answered
Chosen Option : 4

Q.11 What is the greatest number which divides 852, 1065 and 2343 exactly?

- Ans**
- ☒ 1. 213
 - ☒ 2. 235
 - ☒ 3. 852
 - ☒ 4. 426

Question ID : 59445946895
Status : Answered
Chosen Option : 1

Q.12 Ram & Shyam had some money each. Ram had 15 rupees more than Shyam. The amount with Ram was 60 Percent of the total amount with them. How much amount did they have altogether?

- Ans
- ☒ 1. Rs 65
 - ☒ 2. Rs. 75
 - ☒ 3. Rs. 45
 - ☒ 4. Rs 85

Question ID : 59445946890
Status : Answered
Chosen Option : 2

Q.13 If the average marks of three batches of 55, 60 and 45 students respectively is 50, 55, 60, then the total marks of all the students is:

- Ans
- ☒ 1. 8850
 - ☒ 2. 8570
 - ☒ 3. 8750
 - ☒ 4. 7850

Question ID : 59445946893
Status : Answered
Chosen Option : 3

Q.14 Three candidates contested an election and received 1136, 7636 and 11628 votes respectively. What percentage of the total votes did the candidate having least votes get?

- Ans
- ☒ 1. 15.8 Percent
 - ☒ 2. 6.57 Percent
 - ☒ 3. 7.12 Percent
 - ☒ 4. 5.57 Percent

Question ID : 59445946896
Status : Answered
Chosen Option : 4

Q.15 FIND the value of 'X' in the given equation

$(913 + 329 + 522 + 343) \div (18 + 24 - X + 18) = 43$

- Ans
- ☒ 1. 17
 - ☒ 2. 21
 - ☒ 3. 11
 - ☒ 4. 31

Question ID : 59445946887
Status : Answered
Chosen Option : 3

Q.16 In a group, the ratio of doctors to lawyers is 5:4. If the total number of people in the group is 81, what is the number of lawyers in the group?

- Ans
- ☒ 1. 26
 - ☒ 2. 45
 - ☒ 3. 36
 - ☒ 4. 32

Question ID : 59445946891
Status : Answered
Chosen Option : 3

Q.17 If a man can cover 12 metres in one second, how many kilometres can he cover in 4 hours?

- Ans
- ☒ 1. 172.8 km
 - ☒ 2. 171 km
 - ☒ 3. 162.8 km
 - ☒ 4. 182.8 km

Question ID : 59445946892
Status : Answered
Chosen Option : 1

Q.18 The product of 18, 20, 22 and 24 is always divisible by A (other than 2). What is A?

- Ans
- ☒ 1. 392
 - ☒ 2. 384
 - ☒ 3. 374
 - ☒ 4. 372

Question ID : 59445946888
Status : Answered
Chosen Option : 2

Q.19 The six-digit number 45312 A is divisible by 9 where A is a single digit whole number. Find A.

- Ans
- ☒ 1. 1
 - ☒ 2. 0
 - ☒ 3. 3
 - ☒ 4. 4

Question ID : 59445946894
Status : Answered
Chosen Option : 4

Q.20 Some toys were bought at 7 toys for Rs. 5 and sold at 5 toys for Rs.7. Gain percent is:

- Ans ☒ 1. 96 Percent
- ☐ 2. 66 Percent
- ☐ 3. 86 Percent
- ☐ 4. 69 Percent

Question ID : 59445946889
Status : Answered
Chosen Option : 1

Section : English Language

Q.1 Select the suitable option to fill in the blank.

If you had informed me, I _____ cautious.

- Ans ☐ 1. will have been
- ☐ 2. had been
- ☒ 3. would have been
- ☐ 4. would be

Question ID : 59445946900
Status : Answered
Chosen Option : 3

Q.2 Select the suitable option to make the sentence meaningfully complete.

We must _____ our students on subjects like health and sanitation besides the usual subjects.

- Ans ☐ 1. insist
- ☐ 2. impart
- ☐ 3. learn
- ☒ 4. educate

Question ID : 59445946911
Status : Answered
Chosen Option : 4

Q.3 Find the word which is misspelt?

- Ans ☐ 1. Leisure
- ☐ 2. Satellite
- ☐ 3. Apprentice
- ☒ 4. Sedentery

Question ID : 59445946904
Status : Answered
Chosen Option : 4

Q.4 Select the suitable option to fill in the blank.

Sometimes it is difficult to deal _____ the problems of a child.

- Ans ☒ 1. with
- ☒ 2. by
- ☒ 3. of
- ☒ 4. in

Question ID : 59445946899
Status : Answered
Chosen Option : 1

Q.5 Select the most appropriate antonym of the given word.

Boost

- Ans ☒ 1. Discourage
- ☒ 2. Support
- ☒ 3. Encourage
- ☒ 4. Rebuke

Question ID : 59445946909
Status : Answered
Chosen Option : 1

Q.6 Select the option that can be used as a one-word substitute for the given group of words.

A person who collects coins

- Ans ☒ 1. Numismatist
- ☒ 2. Philatelist
- ☒ 3. Narcissist
- ☒ 4. Fatalist

Question ID : 59445946902
Status : Answered
Chosen Option : 1

Q.7 Select the option that will improve the underlined part of the sentence. In case no improvement is needed, select 'No Improvement'.

On hearing the news over the radio that India has won the hockey match, I jumped with joy.

- Ans ☒ 1. India won the hockey match
- ☒ 2. India had won the hockey match
- ☒ 3. India had win the hockey match
- ☒ 4. India has win the hockey match

Question ID : 59445946910
Status : Answered
Chosen Option : 1

Q.8 Select the option that expresses the given sentence in passive voice.

He was conducting the rehearsal of the play.

- Ans
- ☒ 1. The rehearsal of the play had being conducted by him.
 - ☒ 2. The rehearsal of the play was being conducting by him.
 - ☒ 3. The rehearsal of the play was being conduct by him.
 - ☒ 4. The rehearsal of the play was being conducted by him.

Question ID : 59445946905
Status : Answered
Chosen Option : 4

Q.9 The following sentence has been divided into parts. One of them contains an error. Select the part that contains the error from the given options.

The interviewer asked me/ if I knew that/ Kalidas was the greater/than any other poet.

- Ans
- ☒ 1. than any other poet.
 - ☒ 2. The interviewer asked me
 - ☒ 3. Kalidas was the greater
 - ☒ 4. if I knew that

Question ID : 59445946898
Status : Answered
Chosen Option : 4

Q.10 The following sentence has been divided into parts. One of them contains an error. Select the part that contains the error from the given options.

I am not wealthy/ so I cannot afford/ to buy/a expensive car.

- Ans
- ☒ 1. I am not wealthy
 - ☒ 2. a expensive car
 - ☒ 3. so I cannot afford
 - ☒ 4. to buy

Question ID : 59445946897
Status : Answered
Chosen Option : 2

Q.11 Select the most appropriate synonym of the given word.

Zeal

- Ans
- ☒ 1. Hostility
 - ☒ 2. Apathy
 - ☒ 3. Indifference
 - ☒ 4. Passion

Question ID : 59445946907
Status : Answered
Chosen Option : 1

Q.12 Select the option that expresses the given sentence in passive voice.

The police arrested him on a charge of theft, but for lack of evidence released him.

- Ans
- ☒ 1. He has been arrested on a charge of theft, but for lack of evidence he was released.
 - ☒ 2. He was arrested on a charge of theft, but for lack of evidence he had been released.
 - ☒ 3. He was arrested on a charge of theft, but for lack of evidence he was released.
 - ☒ 4. He was arrested on a charge of theft, but for lack of evidence he has been released.

Question ID : 59445946906
Status : Answered
Chosen Option : 3

Q.13 Select the option that can be used as a one-word substitute for the given group of words:

A person with a beautiful and elegant handwriting

- Ans
- ☒ 1. Illiterate
 - ☒ 2. Calligrapher
 - ☒ 3. Choreographer
 - ☒ 4. Cartographer

Question ID : 59445946901
Status : Answered
Chosen Option : 2

Q.14 Select the most appropriate synonym of the given word.

Subjugate

- Ans
- ☒ 1. Enrich
 - ☒ 2. Unshackle
 - ☒ 3. Liberate
 - ☒ 4. Suppress

Question ID : 59445946908
Status : Not Answered
Chosen Option : --

Q.15 Find the word which is correctly spelt?

- Ans
- ☒ 1. Commision
 - ☒ 2. Coomission
 - ☒ 3. Commission
 - ☒ 4. Comission

Question ID : 59445946903
Status : Answered
Chosen Option : 3

Q.1 DeSauty's bridge is used for measurement of:

- Ans
- ☐ 1. High Q inductances
 - ☒ 2. Capacitors with dielectric losses
 - ☐ 3. Low Q inductances
 - ☐ 4. Loss less capacitors

Question ID : 59445946941

Status : Answered

Chosen Option : 4

Q.2 Which of the following method used for finding voltage regulation of alternator was proposed by Potier?

- Ans
- ☐ 1. Direct loading Method
 - ☒ 2. Zero power factor method
 - ☐ 3. E.M.F. Method
 - ☐ 4. M.M.F. Method

Question ID : 59445946953

Status : Answered

Chosen Option : 2

Q.3 In a series resonance circuit, the maximum current is 100 A. What will be the current at upper or lower cutoff frequency?

- Ans
- ☐ 1. 141.4 A
 - ☒ 2. 70.7 A
 - ☐ 3. 100 A
 - ☐ 4. 50 A

Question ID : 59445946931

Status : Answered

Chosen Option : 2

Q.4 In thermal power plant, small pieces of coal must be converted into fine powdered particles. This function is performed by _____.

- Ans
- ☐ 1. Coal feeder
 - ☐ 2. Raw coal bunker
 - ☒ 3. Coal pulverizer
 - ☐ 4. Coal crusher

Question ID : 59445946960

Status : Answered

Chosen Option : 4

Q.5 A capacitor of capacitance $0.25\ \mu\text{F}$ is charged to a voltage of $50\ \text{V}$. Find the charge on the capacitor.

- Ans
- ☒ 1. $125\ \mu\text{C}$
 - ☒ 2. $1.25\ \mu\text{C}$
 - ☒ 3. $0.125\ \mu\text{C}$
 - ☒ 4. $12.5\ \mu\text{C}$

Question ID : 59445946915
Status : Answered
Chosen Option : 4

Q.6 Power is measured in _____.

- Ans
- ☒ 1. Joules/second
 - ☒ 2. Coulomb/second
 - ☒ 3. Watt/second
 - ☒ 4. Joules

Question ID : 59445946912
Status : Answered
Chosen Option : 1

Q.7 Which of the following is the simplest form of tariff?

- Ans
- ☒ 1. Hopkinson demand rate
 - ☒ 2. Doherty rate
 - ☒ 3. Wright demand rate
 - ☒ 4. Straight meter rate

Question ID : 59445946962
Status : Answered
Chosen Option : 4

Q.8 Which of the following instrument can directly measure the pressure?

- Ans
- ☒ 1. Pyrometer
 - ☒ 2. Rotameter
 - ☒ 3. Bourdon tube
 - ☒ 4. Tachometer

Question ID : 59445946937
Status : Answered
Chosen Option : 3

Q.9 A 3-phase induction motor has supply frequency of 50 Hz. When the rotor is stationary, the frequency of rotor current is _____.

- Ans
- ☒ 1. 100 Hz
 - ☒ 2. 0 Hz
 - ☒ 3. 25 Hz
 - ☒ 4. 50 Hz

Question ID : 59445946948
Status : Answered
Chosen Option : 4

Q.10 In magnetic circuit, ampere-turns (AT) is the unit of _____.

- Ans
- ☒ 1. Permeability
 - ☒ 2. Magnetomotive force
 - ☒ 3. Magnetic flux
 - ☒ 4. Magnetic field intensity

Question ID : 59445946923
Status : Answered
Chosen Option : 2

Q.11 A loop which does not contain any other loop within is called _____.

- Ans
- ☒ 1. Open loop
 - ☒ 2. Supermesh
 - ☒ 3. Closed loop
 - ☒ 4. Mesh

Question ID : 59445946919
Status : Answered
Chosen Option : 4

Q.12 In synchronous motor, minimum armature current corresponds to _____.

- Ans
- ☒ 1. Leading power factor
 - ☒ 2. Zero power factor
 - ☒ 3. Lagging power factor
 - ☒ 4. Unity power factor

Question ID : 59445946952
Status : Answered
Chosen Option : 4

Q.13 In DC generator, the characteristic which gives relation between the terminal voltage and the load current is called _____.

- Ans
- ☒ 1. Internal characteristic
 - ☒ 2. External characteristic
 - ☒ 3. Magnetic characteristic
 - ☒ 4. Open-circuit characteristic

Question ID : 59445946943
Status : Answered
Chosen Option : 2

Q.14 Find the average value of a sinusoidal current, if the peak value of the current is 10 A.

- Ans
- ☒ 1. 10 A
 - ☒ 2. 14.1 A
 - ☒ 3. 5 A
 - ☒ 4. 6.37 A

Question ID : 59445946929
Status : Answered
Chosen Option : 4

Q.15 Relative permeability of non-magnetic material is:

- Ans
- ☒ 1. Zero
 - ☒ 2. Greater than unity
 - ☒ 3. Unity
 - ☒ 4. Less than unity but not zero

Question ID : 59445946922
Status : Answered
Chosen Option : 1

Q.16 In a cathode ray tube (CRT), highest positive potential is applied on:

- Ans
- ☒ 1. Focusing anode
 - ☒ 2. Grid
 - ☒ 3. Cathode
 - ☒ 4. Post deflection accelerating anode

Question ID : 59445946935
Status : Answered
Chosen Option : 4

Q.17 A sinusoidal voltage is expressed as $e = 100 \sin 100\pi t$. Find the instantaneous value of the voltage at $(1/600)$ second after the instant the voltage is zero.

- Ans
- ☒ 1. 50 V
 - ☐ 2. 100 V
 - ☐ 3. 70.7 V
 - ☐ 4. 86.6 V

Question ID : 59445946930
Status : Answered
Chosen Option : 1

Q.18 Illumination is measured in _____.

- Ans
- ☒ 1. Lumens/m²
 - ☐ 2. Candela
 - ☐ 3. Lumen-Hours
 - ☐ 4. Lumens/m

Question ID : 59445946967
Status : Answered
Chosen Option : 1

Q.19 Alternators having the rating in _____ MW range, have to be equipped with hollow water cooled conductors.

- Ans
- ☒ 1. 1000
 - ☐ 2. 100
 - ☐ 3. 50
 - ☐ 4. 300

Question ID : 59445946954
Status : Answered
Chosen Option : 1

Q.20 The resistivity of _____ increases with increase in temperature.

- Ans
- ☐ 1. Rubber
 - ☐ 2. Glass
 - ☐ 3. Mica
 - ☒ 4. Copper

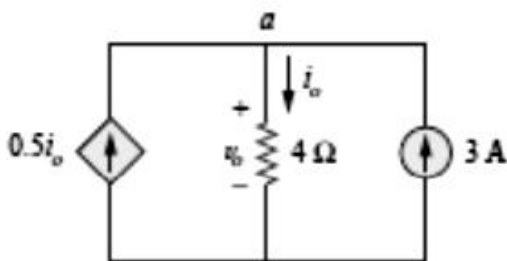
Question ID : 59445946913
Status : Answered
Chosen Option : 4

Q.21 In a thermal power plant, which of the following is NOT a mechanical draught?

- Ans
- ☒ 1. Forced draught
 - ☒ 2. Induced draught
 - ☒ 3. Chimney draught
 - ☒ 4. Balanced draught

Question ID : 59445946964
Status : Answered
Chosen Option : 3

Q.22 For the circuit shown below, find the current “ I_o ”.



- Ans
- ☒ 1. 4 A
 - ☒ 2. 3 A
 - ☒ 3. 6 A
 - ☒ 4. 2 A

Question ID : 59445946920
Status : Answered
Chosen Option : 3

Q.23 Which of the following characteristics is NOT desirable in measuring instrument?

- Ans
- ☒ 1. Accuracy
 - ☒ 2. Reproducibility
 - ☒ 3. Sensitivity
 - ☒ 4. Drift

Question ID : 59445946932
Status : Answered
Chosen Option : 4

Q.24 Which of the following element is NOT found in hydroelectric power plant?

- Ans
- ☒ 1. Spillways
 - ☒ 2. Dam
 - ☒ 3. Conduits
 - ☒ 4. Superheater

Question ID : 59445946965
Status : Answered
Chosen Option : 4

Q.25 Which of the following welding process uses roller type electrodes?

- Ans
- ☒ 1. Spot welding
 - ☒ 2. Butt welding
 - ☒ 3. Projection welding
 - ☒ 4. Seam welding

Question ID : 59445946970
Status : Not Answered
Chosen Option : --

Q.26 A Sinusoidal voltage is represented by an equation, $e = 314 \sin 40 \pi t$. Find the Angular velocity.

- Ans
- ☒ 1. 40 radians/sec
 - ☒ 2. 20 radians/sec
 - ☒ 3. 40π radians/sec
 - ☒ 4. 20π radians/sec

Question ID : 59445946927
Status : Answered
Chosen Option : 3

Q.27 Two coils having self-inductance of 20 H and 5 H are tightly coupled. Find the maximum value of mutual inductance between the coils.

- Ans
- ☒ 1. 20 H
 - ☒ 2. 5 H
 - ☒ 3. 100 H
 - ☒ 4. 10 H

Question ID : 59445946926
Status : Answered
Chosen Option : 4

Q.28 In thermal power plant, _____ is a heat exchanger in which heat is transferred to the saturated steam to increase its temperature.

- Ans
- ☒ 1. Economiser
 - ☒ 2. Superheater
 - ☒ 3. Condenser
 - ☒ 4. Air-preheater

Question ID : 59445946966
Status : Answered
Chosen Option : 2

Q.29 A wattmeter reads 25.34 watts. The absolute error in the measurement is – 0.11 watt. Determine the true value of power.

- Ans
- ☒ 1. 25.23 W
 - ☒ 2. 25.34 W
 - ☒ 3. 24.24 W
 - ☒ 4. 25.45 W

Question ID : 59445946939
Status : Answered
Chosen Option : 4

Q.30 For a specific atom, atomic weight is 108 and atomic number is 47. Find the number of neutrons.

- Ans
- ☒ 1. 61
 - ☒ 2. 47
 - ☒ 3. 155
 - ☒ 4. 108

Question ID : 59445946916
Status : Answered
Chosen Option : 1

Q.31 What will be the self-inductance of the coil if an e.m.f. of 1 volt is induced in it when the current flowing through it changes at the rate of 5 A/sec.

- Ans
- ☒ 1. 5 H
 - ☒ 2. 1 H
 - ☒ 3. 0.2 H
 - ☒ 4. 0.5 H

Question ID : 59445946925
Status : Answered
Chosen Option : 3

Q.32 Which of the following option is correct for Ideal transformer?

- Ans
- ☒ 1. $\frac{V_2}{V_1} = \frac{N_1}{N_2}$
 - ☒ 2. $V_1 \times I_2 = V_2 \times I_1$
 - ☒ 3. $V_1 \times I_1 = V_2 \times I_2$
 - ☒ 4. $\frac{I_1}{I_2} = \frac{N_1}{N_2}$

Question ID : 59445946945

Status : Answered

Chosen Option : 3

Q.33 The shaft torque of a DC motor is less than its armature torque because of _____.

- Ans
- ☒ 1. Mechanical losses
 - ☒ 2. Iron losses
 - ☒ 3. Rotational losses
 - ☒ 4. Copper losses

Question ID : 59445946951

Status : Answered

Chosen Option : 3

Q.34 Which of the following signal is usually used as the time base signal in CRO?

- Ans
- ☒ 1. Saw-tooth signal
 - ☒ 2. Sinusoidal signal
 - ☒ 3. Square wave signal
 - ☒ 4. Triangular wave signal

Question ID : 59445946934

Status : Answered

Chosen Option : 1

Q.35 Two magnetic circuits having reluctance S_1 and S_2 are connected in parallel. Total reluctance of the circuit will be:

- Ans
- ☒ 1. $(S_1 + S_2)$
 - ☒ 2. $(S_1 \times S_2) \div (S_1 + S_2)$
 - ☒ 3. $(S_1 \div S_2)$
 - ☒ 4. $(S_1 + S_2) \div (S_1 \times S_2)$

Question ID : 59445946924

Status : Answered

Chosen Option : 2

Q.36 A 4-pole, 3-phase induction motor operates from a 50 Hz supply. Find the speed of the rotor if the slip is 0.06.

- Ans
- ☒ 1. 1400 rpm
 - ☒ 2. 1410 rpm
 - ☒ 3. 1440 rpm
 - ☒ 4. 1500 rpm

Question ID : 59445946949

Status : Answered

Chosen Option : 2

Q.37 A dc source 10 V with internal resistance of $3\ \Omega$ is connected to a resistor R_L . Maximum transfer of power from source to load takes place when R_L equals.

- Ans
- ☒ 1. $3\ \Omega$
 - ☒ 2. $0\ \Omega$
 - ☒ 3. $9\ \Omega$
 - ☒ 4. $6\ \Omega$

Question ID : 59445946917

Status : Answered

Chosen Option : 1

Q.38 In which of the following heating method, the heating is based on the I^2R effect?

- Ans
- ☒ 1. Induction heating
 - ☒ 2. Dielectric heating
 - ☒ 3. Resistance heating
 - ☒ 4. Infrared heating

Question ID : 59445946969

Status : Answered

Chosen Option : 3

Q.39 In alternator, if the coil span falls short of full pitch by an electrical angle α , then the pitch factor is:

- Ans
- ☒ 1. $\cos \alpha$
 - ☒ 2. $\sin \alpha$
 - ☒ 3. $\sin \alpha/2$
 - ☒ 4. $\cos \alpha/2$

Question ID : 59445946955

Status : Answered

Chosen Option : 4

Q.40 In induction motor, the condition for maximum torque is:

- Ans ☒ 1. $R_2 = s X_2$
☒ 2. $X_2 = s R_2$
☒ 3. $X_2 = s R_2 / (1 - s)$
☒ 4. $R_2 = s X_2 / (1 - s)$

Question ID : 59445946950
Status : Answered
Chosen Option : 1

Q.41 Which of the following lamp does not suffer from stroboscopic effect?

- Ans ☒ 1. Mercury vapour lamp
☒ 2. Sodium vapour lamp
☒ 3. Incandescent lamp
☒ 4. Fluorescent lamp

Question ID : 59445946971
Status : Answered
Chosen Option : 3

Q.42 A sinusoidal current is expressed as $i = 100 \sin 100\pi t$. Find the time period of the signal.

- Ans ☒ 1. 20 ms
☒ 2. 20 s
☒ 3. 2 ms
☒ 4. 2 s

Question ID : 59445946928
Status : Answered
Chosen Option : 1

Q.43 In thermal power plant, feed water for boiler is heated in the _____.

- Ans ☒ 1. Condenser
☒ 2. Economizer
☒ 3. Super heater
☒ 4. Boiler feed pump

Question ID : 59445946959
Status : Answered
Chosen Option : 4

Q.44 The patterns used to measure phase and frequency with a cathode ray oscilloscope are called:

- Ans
- ☒ 1. Faraday's patterns
 - ☒ 2. Kelvin's patterns
 - ☒ 3. Ohm's patterns
 - ☒ 4. Lissajous patterns

Question ID : 59445946940
Status : Answered
Chosen Option : 4

Q.45 Which of the following tariff is a three-part tariff?

- Ans
- ☒ 1. Doherty rate
 - ☒ 2. Hopkinson demand rate
 - ☒ 3. Flat demand rate
 - ☒ 4. Straight meter rate

Question ID : 59445946963
Status : Answered
Chosen Option : 1

Q.46 A 3-phase induction motor has 6 stator poles. If supply frequency is 50 Hz, find the synchronous speed.

- Ans
- ☒ 1. 500 rpm
 - ☒ 2. 1000 rpm
 - ☒ 3. 1200 rpm
 - ☒ 4. 800 rpm

Question ID : 59445946947
Status : Answered
Chosen Option : 2

Q.47 Which of the following is WRONG for an ideal transformer?

- Ans
- ☒ 1. It has considerable I^2R losses
 - ☒ 2. It has no magnetic leakage
 - ☒ 3. It has two purely inductive coils
 - ☒ 4. Its windings have no ohmic resistance

Question ID : 59445946944
Status : Answered
Chosen Option : 1

Q.48 A resistor is rated for $100\ \Omega$, 1 watt. Determine its maximum voltage rating.

- Ans
- ☒ 1. 0.1 V
 - ☒ 2. 1 V
 - ☒ 3. 10 V
 - ☒ 4. 100 V

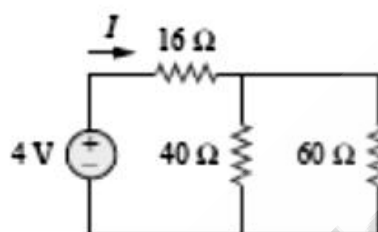
Question ID : 59445946914
Status : Answered
Chosen Option : 3

Q.49 If the induction motor is made to run at synchronous speed, the value of slip will be:

- Ans
- ☒ 1. 1
 - ☒ 2. 0
 - ☒ 3. 0.5
 - ☒ 4. 2

Question ID : 59445946946
Status : Answered
Chosen Option : 2

Q.50 Find the current "I" in the circuit shown below.



- Ans
- ☒ 1. 0.1 A
 - ☒ 2. A
 - ☒ 3. 0.5 A
 - ☒ 4. 0.4 A

Question ID : 59445946918
Status : Answered
Chosen Option : 1

Q.51 In DC motor, the torque which is available for doing useful work is called:

- Ans
- ☒ 1. Load torque
 - ☒ 2. Lost torque
 - ☒ 3. Armature torque
 - ☒ 4. Shaft torque

Question ID : 59445946942
Status : Answered
Chosen Option : 4

Q.52 Which of the following is a conventional source of energy?

- Ans
- ☒ 1. Wind
 - ☒ 2. Biomass
 - ☒ 3. Solar energy
 - ☒ 4. Fossil fuels

Question ID : 59445946957
Status : Answered
Chosen Option : 4

Q.53 Which of the following is NOT used to make the filament of the incandescent lamp?

- Ans
- ☒ 1. Tungsten
 - ☒ 2. Carbon
 - ☒ 3. Silver
 - ☒ 4. Tantalum

Question ID : 59445946968
Status : Answered
Chosen Option : 3

Q.54 Zero power factor method of an alternator is used to find its _____.

- Ans
- ☒ 1. Synchronous impedance
 - ☒ 2. Efficiency
 - ☒ 3. Armature resistance
 - ☒ 4. Voltage regulation

Question ID : 59445946956
Status : Answered
Chosen Option : 4

Q.55 Which is the largest non-conventional source of energy?

- Ans
- ☒ 1. Wind energy
 - ☒ 2. Biomass energy
 - ☒ 3. Tidal Energy
 - ☒ 4. Solar energy

Question ID : 59445946958
Status : Answered
Chosen Option : 4

Q.56 In a temperature measuring instrument, a reading is recorded as 35.70°C . The number of significant figures are _____.

- Ans**
- ☒ 1. Three
 - ☒ 2. Four
 - ☒ 3. Five
 - ☒ 4. Two

Question ID : 59445946933

Status : Answered

Chosen Option : 2

Q.57 In induction type energy meters:

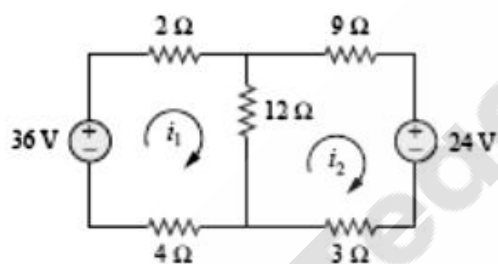
- Ans**
- ☒ 1. Neither Pressure coil nor current coil is moving
 - ☒ 2. Only current coil is moving
 - ☒ 3. Pressure coil and Current coil both are moving
 - ☒ 4. Only pressure coil is moving

Question ID : 59445946938

Status : Answered

Chosen Option : 4

Q.58 Find current i_2 in following circuit.



- Ans**
- ☒ 1. 0 A
 - ☒ 2. 3 A
 - ☒ 3. 1 A
 - ☒ 4. 2 A

Question ID : 59445946921

Status : Answered

Chosen Option : 1

Q.59 Which support of overhead transmission line has least life?

- Ans
- ☒ 1. Steel structures
 - ☐ 2. Wooden poles
 - ☒ 3. Concrete poles
 - ☒ 4. Aluminium alloy structures

Question ID : 59445946961
Status : Answered
Chosen Option : 2

Q.60 Which of the following is active transducer?

- Ans
- ☒ 1. Thermistor
 - ☐ 2. Thermocouple
 - ☒ 3. LVDT
 - ☒ 4. RTD

Question ID : 59445946936
Status : Answered
Chosen Option : 2

