



Dedicated Freight Corridor Corporation of India Ltd.

A Government of India (Ministry of Railways) Enterprise

(भारत सरकार का उपक्रम)

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|------------------------|--|
| Candidate Name: | |
| Candidate Roll Number: | |
| Test Center Name: | ION Digital Zone iDZ, Thigalarapalya Main Road |
| Subject: | Executive Electrical |
| Test Date: | 17/04/2016 |
| Shift: | Shift 2 |

Section : Technical

Q.1 The detrimental effects of armature reaction can be controlled by:

1. Increasing the length of air gap
2. Using commutating poles
3. Increasing the cross-section of pole pieces

Which of these is/are incorrect?

- Ans**
- ☒ 1. 2 and 3
 - ☒ 2. Only 3
 - ☒ 3. Only 1
 - ☒ 4. 1 and 2

Question ID : 7368158235

Status : Answered

Chosen Option : 1

Q.2 What will be the rms value of a half wave rectified symmetrical square wave which is having current of 4 A?

- Ans**
- ☒ 1. 2.82 A
 - ☒ 2. 1.414 A
 - ☒ 3. 6.45 A
 - ☒ 4. 0.707 A

Question ID : 7368158197

Status : Answered

Chosen Option : 1

Q.3 In armature winding, the distance between the segments to which the ends of coils are connected is?

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

Question ID : 7368158231

Status : Answered

Chosen Option : 2

Q.4 In a Common Base Configuration, BJT has _____ input impedance and _____ output impedance.

- Ans**
- ☒ 1. low, low
 - ☒ 2. high, low
 - ☒ 3. low, high
 - ☒ 4. high, high

Question ID : 7368158259

Status : Answered

Chosen Option : 3

Q.5 Superconductors now a day found their application in various fields. This is due to the fact that they:

- Ans**
- ☒ 1. generate regions free from magnetic field
 - ☒ 2. manufacture bubble memories
 - ☒ 3. generate electrostatic field

Question ID : 7368158223

Status : Not Attempted and Marked For Review

Chosen Option : --

✓ 4. generate very strong magnetic field

Q.6 For a Lap wound generator, the number of parallel paths in armature is taken to be:

Ans ✗ 1. 2

✓ 2. number of poles

✗ 3. number of poles/2

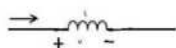
✗ 4. 4

Question ID : 7368158233

Status : Answered

Chosen Option : 2

Q.7 For the given circuit find the value of v at $t=12$ ms. If current is given as $i=10e^{-(t-1000)}$ A. (Where $L=25$ mH).



Ans ✓ 1. -15.06 mV

✗ 2. -0.987 mV

✗ 3. 34.09 mV

✗ 4. 87.99 mV

Question ID : 7368158191

Status : Not Attempted and Marked For Review

Chosen Option : --

Q.8 Which of the following generator has zero percent regulation?

Ans ✓ 1. Flat compound

✗ 2. Over compound

✗ 3. Under compound

✗ 4. Both Under compound and Flat compound

Question ID : 7368158238

Status : Answered

Chosen Option : 1

Q.9 If there were no copper losses in the motor:

Ans ✗ 1. rotor does not run

✗ 2. rotor runs at normal speed

✓ 3. rotor runs at synchronous speed

✗ 4. rotor runs at infinite speed

Question ID : 7368158244

Status : Marked For Review

Chosen Option : 1

Q.10 In a semiconductor, Drift current is due to:

Ans ✗ 1. volume gradient

✗ 2. diffusion of charge

✗ 3. concentration gradient

✓ 4. applied electric field

Question ID : 7368158250

Status : Answered

Chosen Option : 4

Q.11 For normal biasing, the emitter junction of BJT has:

Ans ✗ 1. very high resistance

✓ 2. low resistance

✗ 3. no resistance

✗ 4. high resistance

Question ID : 7368158255

Status : Answered

Chosen Option : 2

Q.12 In an induction motor, at speeds near to synchronous speed, the torque-speed and torque-slip curves are approximately:

Ans ✗ 1. hyperbolas

✗ 2. parabolas

✗ 3. ellipses

Question ID : 7368158243

Status : Answered

Chosen Option : 4

4. straight lines

Q.13 In electric braking of shunt motors, plugging is used to control.

1. Printing press
2. Rolling mills
3. Elevators

The incorrect amongst these is/are:

- Ans**
- ☒ 1. 2 and 3
 - ☒ 2. None of the other options
 - ☒ 3. 1 and 2
 - ☒ 4. Only 3

Question ID : 7368158241

Status : Answered

Chosen Option : 1

Q.14 The generated emf per parallel path in armature of a DC Generator is:

1. Directly proportional to flux
2. Inversely proportional to number of poles
3. Directly proportional to rotational speed of armature

Which of these is/are correct?

- Ans**
- ☒ 1. 1 and 3
 - ☒ 2. 2 and 3
 - ☒ 3. Only 2
 - ☒ 4. 1 and 2

Question ID : 7368158232

Status : Answered

Chosen Option : 1

Q.15 DC bias is adjusted greater than its cut-off value so that the output current flow for less than half of the input voltage cycle, in:

- Ans**
- ☒ 1. Class C amplifier
 - ☒ 2. Class AB amplifier
 - ☒ 3. Class A amplifier
 - ☒ 4. Class B amplifier

Question ID : 7368158260

Status : Answered

Chosen Option : 1

Q.16 If we want to represent a relation between number of link currents and number of branch currents in a directional graph, we should use:

- Ans**
- ☒ 1. incidence
 - ☒ 2. tie set
 - ☒ 3. cutset
 - ☒ 4. reduced incidence

Question ID : 7368158184

Status : Answered

Chosen Option : 2

Q.17 Poynting-vector Wattmeter works on _____.

- Ans**
- ☒ 1. heating effect
 - ☒ 2. magnetic effect
 - ☒ 3. induction effect
 - ☒ 4. hall effect

Question ID : 7368158202

Status : Answered

Chosen Option : 4

Q.18 In a RLC circuit Inductance is 20 mH and capacitance is 200 micro Farad. Find the resonance frequency of the circuit.

- Ans**
- ☒ 1. 1000 rad/sec
 - ☒ 2. 50 rad/sec
 - ☒ 3. 250 rad/sec
 - ☒ 4. 500 rad/sec

Question ID : 7368158193

Status : Answered

Chosen Option : 4

Q.19

Question ID : 7368158240

If the slip in an induction motor is 0.25 and the synchronous speed is 600 rpm, the motor speed (in rpm) would be:

Status : Answered

Chosen Option : 4

- Ans
- ☒ 1. 900
 - ☒ 2. 750
 - ☒ 3. 125
 - ☒ 4. 450

Q.20 For ammeter shunts, which one of the following is not a possible requirement?

Question ID : 7368158205

Status : Answered

Chosen Option : 1

- Ans
- ☒ 1. It should have high thermal automotive force
 - ☒ 2. It should carry current without excessive temperature rise
 - ☒ 3. Its temperature coefficient must be low
 - ☒ 4. Its resistance should not vary with time

Q.21 Which of the following increases Steady State Accuracy?

Question ID : 7368158212

Status : Answered

Chosen Option : 4

- Ans
- ☒ 1. Phase Lead Compensator
 - ☒ 2. Phase Lag Compensator
 - ☒ 3. Integrator
 - ☒ 4. Differentiator

Q.22 Which of the following instruments totalize events over a specified period of time?

Question ID : 7368158201

Status : Answered

Chosen Option : 3

- Ans
- ☒ 1. Indicating instruments
 - ☒ 2. All the types of analog instruments
 - ☒ 3. Recording instruments
 - ☒ 4. Integrating instruments

Q.23 The electron-hole mobility ratio in Germanium is:

Question ID : 7368158247

Status : Answered

Chosen Option : 2

- Ans
- ☒ 1. (1.2) : 1
 - ☒ 2. (2.8) : 1
 - ☒ 3. 1 : 1
 - ☒ 4. 2 : 1

Q.24 Out of the following, what happens to the overall gain of the system of a closed loop control system with positive value of feedback gain?

Question ID : 7368158215

Status : Answered

Chosen Option : 2

- Ans
- ☒ 1. Increase or Decrease
 - ☒ 2. Increase
 - ☒ 3. No effect
 - ☒ 4. Decrease

Q.25 A series or parallel RLC circuit is said to be over damped if:

Question ID : 7368158194

Status : Answered

Chosen Option : 1

- Ans
- ☒ 1. $\alpha > \omega n$
 - ☒ 2. $2\alpha = \omega n$
 - ☒ 3. $\alpha < \omega n$
 - ☒ 4. $\alpha = \omega n$

Q.26

Question ID : 7368158254

In a BJT, collector region width is maximum when it:

1. collects maximum number of charge carrier
2. reduces heat dissipation per unit area

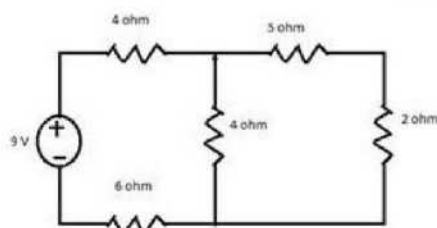
Out of these,

- Ans ☒ 1. Only 2 is correct
☒ 2. Only 1 is correct
☒ 3. None is correct
☒ 4. Both 1 and 2 are correct

Status : Answered

Chosen Option : 1

Q.27 Find the Thevenin's voltage V_{th} across 2 ohm resistance.



- Ans ☒ 1. 4.778 V
☒ 2. 2.571 V
☒ 3. 3.455 V
☒ 4. 8.908 V

Question ID : 7368158187

Status : Answered

Chosen Option : 2

Q.28 For the measurement of high resistances, following methods are used:

1. Loss of Charge Method
2. Direct Deflection Method
3. Substitution Method

Which of the following is/are correct?

- Ans ☒ 1. 1 and 2
☒ 2. 2 and 3
☒ 3. 1 and 3
☒ 4. Only 1

Question ID : 7368158206

Status : Answered

Chosen Option : 4

Q.29 The magnitude of critical density in a superconductor depends on:

- Ans ☒ 1.

Both temperature and magnetic field strength

- ☒ 2.
 temperature for some time and then on magnetic field strength
☒ 3. temperature
☒ 4. magnetic field strength

Question ID : 7368158222

Status : Not Attempted

Chosen Option : --

Q.30 Induction Type Instruments can be employed for:

- Ans ☒ 1. direct current only
☒ 2. alternating currents only
☒ 3. usually dc for heavy currents
☒ 4. both AC and DC

Question ID : 7368158203

Status : Answered

Chosen Option : 2

Q.31 According to Super position theorem, a Voltage source of 0 V can be replaced by a:

- Ans ☒ 1. Cannot be replaced
☒ 2. Short circuit

Question ID : 7368158186

Status : Answered

Chosen Option : 2

☒ 3. Open circuit

☒ 4. 5 V

Q.32 What do we call an externally introduced signal which affects the controlled output?

Ans ☒ 1. Stimulus

☒ 2. Signal

☒ 3. Feedback

☒ 4. Gain Control

Question ID : 7368158213

Status : Answered

Chosen Option : 1

Q.33 For elements having energy gap more than 5 eV, act as:

Ans ☒ 1. Semiconductors

☒ 2. Superconductors

☒ 3. Insulators

☒ 4. Conductors

Question ID : 7368158246

Status : Answered

Chosen Option : 3

Q.34 Which of the following statements regarding a shell type transformer is INCORRECT?

Ans ☒ 1.

Magnetizing current is lesser as compared to core type

☒ 2. Natural cooling is quite good

☒ 3. It provides shorter magnetic path

☒ 4.

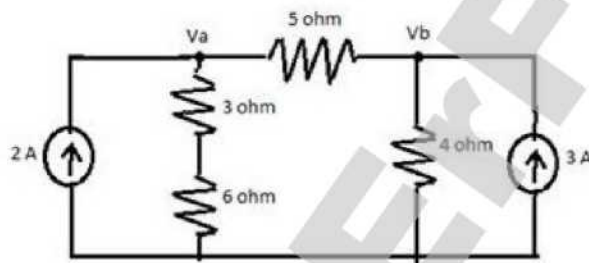
It gives better support against electromagnetic forces between current carrying transformer

Question ID : 7368158226

Status : Answered

Chosen Option : 3

Q.35 Find out the node voltages of the given circuit.



Ans ☒ 1. $V_a = 0$ V, $V_b = 120$ V

☒ 2. $V_a = 15$ V, $V_b = 13.3$ V

☒ 3. $V_a = 0$ V, $V_b = 0$ V

☒ 4. $V_a = 1.89$ V, $V_b = 16$ V

Question ID : 7368158181

Status : Answered

Chosen Option : 2

Q.36 Carbon electrodes are used in:

1. GLS lamps

2. Dry cells

3. Arc furnace

Which of the following is/are correct?

Ans ☒ 1. Only 1

☒ 2. 2 and 3

☒ 3. 1 and 3

☒ 4. 1, 2 and 3

Question ID : 7368158221

Status : Answered

Chosen Option : 4

Q.37 Transformers are connected in parallel for supplying:

Question ID : 7368158229

Ans ☒ 1.

load in excess of rating of an existing transformer

☒ 2.

load equal to the rating of an existing transformer

☒ 3.

load less than the rating of an existing transformers

☒ 4.

load less or equal to the rating of an existing transformer

Status : **Answered**

Chosen Option : 1

Q.38 A tunnel diode is fabricated from:

Ans ☒ 1. GaAs☒ 2. Ge☒ 3. Si☒ 4. Ge or GaAs

Question ID : 7368158252

Status : **Answered**

Chosen Option : 4

Q.39 How many crystal systems are known till date?

Ans ☒ 1. 7☒ 2. 12☒ 3. 10☒ 4. 6

Question ID : 7368158219

Status : **Not Attempted**

Chosen Option : --

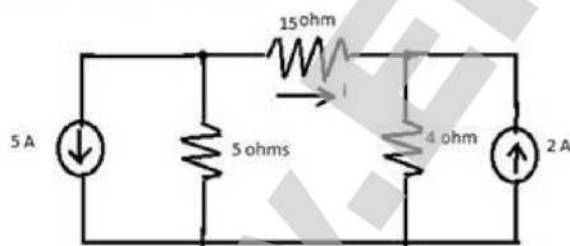
Q.40 In FET, the np region between source and gate is:

Ans ☒ 1. forward or reverse biased☒ 2. unbiased☒ 3. forward biased☒ 4. reverse biased

Question ID : 7368158256

Status : **Answered**

Chosen Option : 4

Q.41 Find out the value of i .Ans ☒ 1. 2.889 A☒ 2. 7.985 A☒ 3. 1.375 A☒ 4. 5.009 A

Question ID : 7368158183

Status : **Answered**

Chosen Option : 3

Q.42 Deflection produced in Moving Iron Instruments is:

Ans ☒ 1.

inversely proportional to rms value of operating current

☒ 2.

inversely proportional to square of rms value of operating current

☒ 3.

proportional to rms value of operating current

☒ 4.

Question ID : 7368158208

Status : **Answered**

Chosen Option : 4

Q.43 The composition of a Carbon resistor is:

- Ans ☒ 1. pulverized charcoal
☒ 2. finely divided carbon black
☒ 3. paper ash
☒ 4. pulverized coal

Question ID : 7368158220

Status : Not Attempted and Marked For Review

Chosen Option : --

Q.44 Which of the following oscillates

1. Open loop system
2. Closed loop system

Which of the following is/are correct?

- Ans ☒ 1. Only 1
☒ 2. Neither 1 nor 2
☒ 3. Both 1 and 2
☒ 4. Only 2

Question ID : 7368158214

Status : Answered

Chosen Option : 4

Q.45 If the output power of a transformer is 600 W whereas the losses are 200 W, the efficiency of the transformer will be:

- Ans ☒ 1. 41.4%
☒ 2. 50%
☒ 3. 75%
☒ 4. 66.6%

Question ID : 7368158227

Status : Answered

Chosen Option : 3

Q.46 A DC generator efficiency is maximum when:

- Ans ☒ 1. Variable loss + Constant loss=1
☒ 2. Constant loss – Variable loss=1
☒ 3. Variable loss – Constant loss=0
☒ 4. Variable loss – Constant loss=1

Question ID : 7368158234

Status : Answered

Chosen Option : 3

Q.47 The real name of MOSFET is IG FET because the gate here is:

- Ans ☒ 1. inductive
☒ 2. open
☒ 3. biased
☒ 4. insulated

Question ID : 7368158257

Status : Answered

Chosen Option : 4

Q.48 Assertion A: Copper Losses are small in Squirrel cage induction motors.
Reason R: Overhang is less and space factor is better in Squirrel cage induction motors.

- Ans ☒ 1. A is correct but R is not a suitable reason for it
☒ 2. A is correct and R is the suitable reason for it
☒ 3. A is correct but R is not correct
☒ 4. R is correct but A is not correct

Question ID : 7368158245

Status : Answered

Chosen Option : 1

Q.49 A 12-pole induction motor has a frequency of 60 Hz. Its synchronous speed would be:

- Ans ☒ 1. 600 rpm

Question ID : 7368158242

Status : Answered

☒ 2. 660 rpm

☒ 3. 480 rpm

☒ 4. 500 rpm

Chosen Option : 1

Q.50 Which of the following is not an example of Intrinsic semiconductor?

Ans ☒ 1. Germanium

☒ 2. Argentum

☒ 3. Selenium

☒ 4. Silicon

Question ID : 7368158217

Status : Answered

Chosen Option : 3

Q.51 FET is a _____ controlled device.

Ans ☒ 1. voltage

☒ 2. resistance

☒ 3. current

☒ 4. impedance

Question ID : 7368158258

Status : Answered

Chosen Option : 1

Q.52 Which of the following determines the frequency with which an atom vibrates in the crystal?

Ans ☒ 1. Number of atoms per unit cell in the crystal

☒ 2. Temperature of the crystal

☒ 3. Heat content of the crystal

☒ 4.

Stiffness of bonds it makes with the neighbours

Question ID : 7368158218

Status : Marked For Review

Chosen Option : 4

Q.53 Materials with low resistivity do not find their applications in:

Ans ☒ 1. heating element

☒ 2. transformers

☒ 3. transmission lines

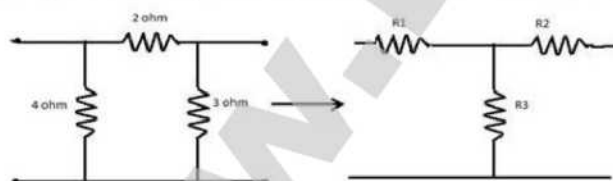
☒ 4. house wiring

Question ID : 7368158216

Status : Answered

Chosen Option : 1

Q.54 In the given Delta-wye conversion, Find the value of R1, R2 & R3.



Ans ☒ 1. 8/9, 6/9, 12/9

☒ 2. 9/6, 9/12, 9/8

☒ 3. 6/9, 12/9, 7/8/9

☒ 4. 9/12, 9/6, 9/8

Question ID : 7368158190

Status : Answered

Chosen Option : 1

Q.55 The point of intersection of two or more branches in any network is known as:

Ans ☒ 1. Branch

☒ 2. Node

☒ 3. Twig

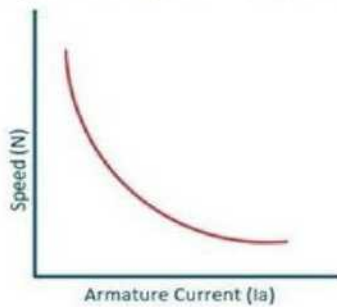
☒ 4. Path

Question ID : 7368158182

Status : Answered

Chosen Option : 2

Q.56 The following figure is the Speed-Current characteristics of:



Question ID : 7368158224
Status : Answered
Chosen Option : 4

- Ans
- ☒ 1. Shunt Motor
 - ☒ 2. Differential Compound Motor
 - ☒ 3. Cumulative Compound Motor
 - ☒ 4. Series Motor

Q.57 Assertion A: Separately excited generators are used in Ward Leonard System of speed control but self-excited are not.

Reason R: Self excitation is unsuitable at lower voltages.

Question ID : 7368158236
Status : Answered
Chosen Option : 3

- Ans
- ☒ 1. R is correct but A is not correct
 - ☒ 2. A is correct but R is not a suitable reason for it
 - ☒ 3. A is correct and R is the suitable reason for it
 - ☒ 4. A is correct but R is not correct

Q.58 When three phase load is comparatively small so that the installation does not warrant 3-transformer bank, which of the following 3-phase transformer connection is used?

Question ID : 7368158230
Status : Answered
Chosen Option : 4

- Ans
- ☒ 1. Delta-star connection
 - ☒ 2. Y-Y connection
 - ☒ 3. T-T scott connection
 - ☒ 4. V-V connection

Q.59 What can be done in order to prevent Creeping in Energy meters?

Question ID : 7368158204
Status : Answered
Chosen Option : 4

- Ans
- ☒ 1. Disc is made to run where there is no current
 - ☒ 2. Creeping can't be prevented
 - ☒ 3. Friction is over compensated
 - ☒ 4. Two diametrically opposite holes are drilled in the disc

Q.60 If the alternating current equation is $i = 64.8 \sin 423t$. What will be the average current?

Question ID : 7368158196
Status : Answered
Chosen Option : 4

- Ans
- ☒ 1. 5.99 A
 - ☒ 2. 56.78 A
 - ☒ 3. 67.45 A
 - ☒ 4. 41.21 A

Q.61 If two or more components are connected in _____ they have the same potential difference (voltage) across their ends.

Question ID : 7368158198
Status : Answered
Chosen Option : 3

- Ans
- ☒ 1. series
 - ☒ 2. parallel-series
 - ☒ 3. parallel

☒ 4. opposite

Q.62 Distribution Transformers:

1. Have good voltage regulation
2. Are designed for small value of current

Which of these is/are CORRECT?

- Ans**
- ☒ 1. Both 1 and 2
- ☒ 2. Only 2
- ☒ 3. Neither 1 nor 2
- ☒ 4. Only 1

Question ID : 7368158225

Status : Answered

Chosen Option : 2

Q.63 Which one of the following is the condition for Maximum power transfer in a circuit?

- Ans**
- ☒ 1. $R_L = 4R_s$
- ☒ 2. $R_L = R_s/2$
- ☒ 3. $R_L = 2R_s$
- ☒ 4. $R_L = R_s$

Question ID : 7368158188

Status : Answered

Chosen Option : 4

Q.64 According to Tellegen's theorem, which one of the following is correct?

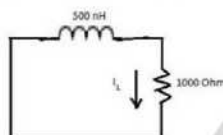
- Ans**
- ☒ 1. Σ power delivered = $2 \times \Sigma$ power absorbed
- ☒ 2. Σ power delivered = K / Σ power absorbed
- ☒ 3. Σ power delivered = Σ power absorbed
- ☒ 4. Σ power delivered = $1 / \Sigma$ power absorbed

Question ID : 7368158189

Status : Answered

Chosen Option : 3

Q.65 What will be the value of current I_L through the resistor at $t = 1$ ns if $I_R(0) = 6$ Ampere.



- Ans**
- ☒ 1. 4.66 mA
- ☒ 2. 456 mA
- ☒ 3. 6.098 A
- ☒ 4. 812 mA

Question ID : 7368158192

Status : Not Attempted and Marked For Review

Chosen Option : --

Q.66 A Varactor diode finds its applications in:

1. Low Noise Parametric Amplifier
2. Frequency Convecter
3. Harmonic Frequency Generator

Which of these is/are CORRECT?

- Ans**
- ☒ 1. Only 2
- ☒ 2. 2 and 3
- ☒ 3. 1 and 2
- ☒ 4. 1, 2 and 3

Question ID : 7368158253

Status : Answered

Chosen Option : 4

Q.67 Shunt generators are generally used for:

- Ans**
- ☒ 1. elevators
- ☒ 2. charging batteries

Question ID : 7368158239

Status : Answered

Chosen Option : 2

☒ 3. regenerative braking of dc locomotives

☒ 4. arc welding

Q.68 Wein's Bridge measures:

- Ans**
- ☒ 1. Resistance
 - ☒ 2. Power
 - ☒ 3. Frequency
 - ☒ 4. Power factor

Question ID : 7368158207

Status : Answered

Chosen Option : 1

Q.69 Zener breakdown occurs when reverse bias of voltage is approximately:

- Ans**
- ☒ 1. 0.1 - 2 V
 - ☒ 2. 2 - 4 V
 - ☒ 3. 10 V
 - ☒ 4. 4 - 6 V

Question ID : 7368158251

Status : Answered

Chosen Option : 2

Q.70 Which one of the following condition is true about parallel RLC circuit?

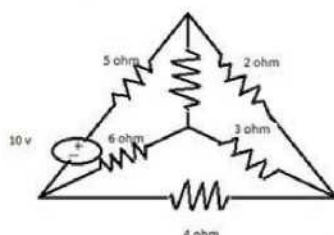
- Ans**
- ☒ 1. $IR = V/R$, $I_c = V/X_c$, $I_L = V/X_L$
 - ☒ 2. $IR = V/X_L$, $I_c = V/R$, $I_L = V/X_c$
 - ☒ 3. $VR = IR$, $VL = I \cdot X_L$, $VC = I \cdot X_c$
 - ☒ 4. $IR = V/X_c$, $I_c = V/R$, $I_L = V/X_L$

Question ID : 7368158200

Status : Answered

Chosen Option : 1

Q.71 What will be the number of tie set currents in the given circuit?



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

Question ID : 7368158185

Status : Answered

Chosen Option : 4

Q.72 Iron losses in a transformer is a sum of:

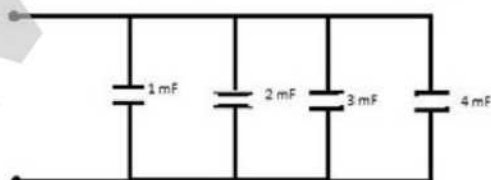
- Ans**
- ☒ 1. constant loss and copper loss
 - ☒ 2. copper loss, eddy current loss and hysteresis loss
 - ☒ 3. hysteresis loss and eddy current loss
 - ☒ 4. copper loss and hysteresis loss

Question ID : 7368158228

Status : Answered

Chosen Option : 3

Q.73 What will be the resultant capacitance of the given combination?



- Ans**
- ☒ 1. 0.67 mF

Question ID : 7368158199

Status : Answered

Chosen Option : 3

☒ 2. 0.48 mF

☒ 3. 10 mF

☒ 4. 5 mF

Q.74 Match the following Instruments given in column 1 with the respective quantities they read in column 2.

Column 1

1. De'Sauty Bridge
2. Potentiometer
3. Megger
4. Wattmeter

Column 2

- a. Capacitance
- b. Low Resistance
- c. High Resistance
- d. Power

Question ID : 7368158210

Status : Answered

Chosen Option : 2

Ans ☒ 1. 1-d, 2-c, 3-b, 4-a

☒ 2. 1-a, 2-b, 3-c, 4-d

☒ 3. 1-a, 2-c, 3-b, 4-d

☒ 4. 1-d, 2-b, 3-c, 4-a

Q.75 The energy which any electron possesses at 0 K is :

Ans ☒ 1. Valence energy

☒ 2. Conduction energy

☒ 3. Exergy

☒ 4. Fermi level

Question ID : 7368158248

Status : Answered

Chosen Option : 4

Q.76 The current in a circuit follows the relation $i = 200 \sin \omega t$. If frequency is 50 Hz, how long will it take for the current to rise to 100 A?

Ans ☒ 1. 0.32 ms

☒ 2. 1.66 ms

☒ 3. 5.98 ms

☒ 4. 3.33 ms

Question ID : 7368158195

Status : Answered

Chosen Option : 2

Q.77 Compound generators are used to supply power to:

Ans ☒ 1. incandescent lamps

☒ 2. railway circuits

☒ 3. elevator motors

☒ 4.

railway circuits, incandescent lamps and elevator motors

Question ID : 7368158237

Status : Marked For Review

Chosen Option : 4

Q.78 Assertion A: Si can be operated at high temperature

Reason R: Energy gap of Ge is more than Si

Ans ☒ 1. R is correct but A is not correct

☒ 2.

A is correct but R is not a suitable reason for it

☒ 3.

A is correct and R is the suitable reason for it

☒ 4. A is correct but R is not correct

Question ID : 7368158249

Status : Answered

Chosen Option : 4

Q.79 What is meant by zero initial condition for a system?

Ans ☒ 1. Zero input reference signal

☒ 2.

System is at rest and no energy is stored in any of its components

☒ 3. No initial movement of moving parts

Question ID : 7368158211

Status : Answered

Chosen Option : 2

☒ 4. Zero stored energy

Q.80 AC Bridges cannot be used for the direct measurement of:

- Ans**
- ☒ 1. loss factor
 - ☒ 2. capacitance
 - ☒ 3. inductance
 - ☒ 4. capacitance storage factor

Question ID : 7368158209

Status : Answered

Chosen Option : 4

Section : General Knowledge

Q.1 The Indian constitution came into force on:

- Ans**
- ☒ 1. 26th Jan 1950
 - ☒ 2. 26th Jan 1955
 - ☒ 3. 26th Jan 1951
 - ☒ 4. 26th Jan 1949

Question ID : 7368158266

Status : Marked For Review

Chosen Option : 3

Q.2 Who won the title of Australian open tennis tournament in women's singles category in 2016?

- Ans**
- ☒ 1. Sania Mirza
 - ☒ 2. Maria Sharapova
 - ☒ 3. Angelique Kerber
 - ☒ 4. Venus Williams

Question ID : 7368158269

Status : Answered

Chosen Option : 3

Q.3 Which of the following is not a unit used for measuring Energy?

- Ans**
- ☒ 1. Fathoms
 - ☒ 2. Joules
 - ☒ 3. Ergs
 - ☒ 4. Calories

Question ID : 7368158268

Status : Answered

Chosen Option : 1

Q.4 Param Yuva II, designed by C-DAC in PUNE is a type of:

- Ans**
- ☒ 1. Missile
 - ☒ 2. Bullet train
 - ☒ 3. Space shuttle
 - ☒ 4. Super computer

Question ID : 7368158267

Status : Answered

Chosen Option : 4

Q.5 Who received K.Veermani Social Justice Award for the year 2016?

- Ans**
- ☒ 1. Chandrababu Naidu
 - ☒ 2. Nitish Kumar
 - ☒ 3. Akhilesh Yadav
 - ☒ 4. K. Chandra Sekhar Rao

Question ID : 7368158270

Status : Not Attempted

Chosen Option : --

Q.6 Which Indian state has a separate constitution?

- Ans**
- ☒ 1. Manipur
 - ☒ 2. Tamil Nadu
 - ☒ 3. Madhya Pradesh
 - ☒ 4. Jammu & Kashmir

Question ID : 7368158265

Status : Answered

Chosen Option : 4

Q.7 Sri Lanka is separated from India by a narrow channel of sea formed by the Palk Strait and:

- Ans ☒ 1. Gulf of Mannar
☒ 2. Gulf of Gibralter
☒ 3. Gulf of Sinhala
☒ 4. Gulf of Kuch

Question ID : 7368158261

Status : Not Attempted and Marked For Review

Chosen Option : --

Q.8 First official census in India was conducted in the year _____.

- Ans ☒ 1. 1927
☒ 2. 1871
☒ 3. 1910
☒ 4. 1887

Question ID : 7368158263

Status : Marked For Review

Chosen Option : 1

Q.9 What is the full form of HSRA, a group which was founded in 1928 of which Bhagat Singh is a member?

- Ans ☒ 1. Hindustan Socialist Republican army
☒ 2. Hindustan Socialist Rebel Army
☒ 3. Hindustan Socialist Revolutionary Army
☒ 4. Hindustan Socialist Renaissance Army

Question ID : 7368158262

Status : Not Attempted

Chosen Option : --

Q.10 The full form of FERA, a term related to Foreign Exchange is:

- Ans ☒ 1. Foreign Exchange Regulation Act
☒ 2. Foreign Exchange Reimbursement Act
☒ 3. Foreign Exchange Restriction Act
☒ 4. Foreign Exchange Remuneration Act

Question ID : 7368158264

Status : Answered

Chosen Option : 2

Section : Reasoning

Q.1 Four brothers R, S, M and G are at their annual family property fight sitting across a circular table. Their occupations are – author, biologist, chemist and doctor, but not necessarily in that order. G starts by setting the agenda of the meeting and after him the doctor gives a long discourse of what is right and what is wrong. R is sitting across the doctor and next to the chemist. M is silent throughout the meeting and the chemist speaks only at the very end.

The profession of R is:

- Ans ☒ 1. Inadequate data
☒ 2. Author
☒ 3. Doctor
☒ 4. Biologist

Question ID : 7368158274

Status : Not Attempted

Chosen Option : --

Q.2 Select from the given choices the letter sequence that completes the following sequence in an order.
 a a _ b _ a a _ a b

- Ans ☒ 1. b b a a
☒ 2. a b a b
☒ 3. a b b b b
☒ 4. a a a b b

Question ID : 7368158275

Status : Answered

Chosen Option : 3

Q.3 Identify the similar set of numbers.
 (64, 81, 144)

Question ID : 7368158272

Status : Answered

Ans ☒ 1. (256, 324, 361)

☒ 2. (464, 467, 4840)

☒ 3. (21, 34, 14)

☒ 4. (789, 491, 68)

Chosen Option : 1

Q.4 In a certain code, KNOWLEDGE is coded as 256535475, how is GENERAL coded in that code?

Ans ☒ 1. 7969393

☒ 2. 7555931

☒ 3. 7555913

☒ 4. 7545993

Question ID : 7368158277

Status : Answered

Chosen Option : 3

Q.5 If GUN is coded as HVO, then IBU is coded as:

Ans ☒ 1. NOT

☒ 2. HAT

☒ 3. RAT

☒ 4. HEN

Question ID : 7368158278

Status : Answered

Chosen Option : 2

Q.6 Mr. C is sitting on ninth chair from the left end facing North and Seventeenth from the right end. Then total number of chairs in a row are:

Ans ☒ 1. 23 chairs

☒ 2. 26 chairs

☒ 3. 25 chairs

☒ 4. 40 chairs

Question ID : 7368158276

Status : Answered

Chosen Option : 3

Q.7 Iran is related to Baghdad in the same way Austria is related to _____.

Ans ☒ 1. Vienna

☒ 2. Lisbon

☒ 3. Athens

☒ 4. Ottawa

Question ID : 7368158273

Status : Answered

Chosen Option : 1

Q.8 If X is the maternal aunt of Q, who is the son of Z, and Z is the son-in-law of E, then how is X related to E?

Ans ☒ 1. Daughter

☒ 2. Mother

☒ 3. Aunt

☒ 4. Sister

Question ID : 7368158271

Status : Answered

Chosen Option : 3

Q.9 Determine the pattern and fill in the missing number.

3, 8, 18, 38, _____, 158

Ans ☒ 1. 67

☒ 2. 60

☒ 3. 65

☒ 4. 78

Question ID : 7368158280

Status : Answered

Chosen Option : 4

Q.10 A and B started from a fixed place. A moves towards North and after walking 3 km turns to his right and covers 4 km. B moves towards West and Walks 5 km and then turns to his right and walks 3 km. Now how far A and B are from each other?

Ans ☒ 1. 9 km

Question ID : 7368158279

Status : Answered

Chosen Option : 1

☒ 2. 4 km

☒ 3. 5 km

☒ 4. 8 km