

DFCCIL Executive Electrical (17-04-2016)



Candidate Name:	
Candidate Roll Number:	
Test Center Name:	
Subject:	Executive Electrical
Test Date:	17/04/2016
Shift:	Shift 2

Section : **Technical**

Q. 1 Poynting-vector Wattmeter works on _____.

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

Question ID : 7368158202

Status : **Answered**

Chosen Option : 4

Q. 2 If we want to represent a relation between number of link currents and number of branch currents in a directional graph, we should use:

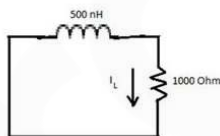
- Ans
- ☐ 1. reduced incidence
 - ☐ 2. incidence
 - ☒ 3. tie set
 - ☐ 4. cutset

Question ID : 7368158184

Status : **Answered**

Chosen Option : 3

Q. 3 What will be the value of current I_L through the resistor at $t = 1$ ns if $I_R(0) = 6$ Ampere.



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

Question ID : 7368158192

Status : **Not Attempted**

Chosen Option : --

Q. 4 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. 0.707 A
 - ☐ 3. 6.45 A
 - ☐ 4. 1.414 A

Question ID : 7368158197

Status : **Answered**

Chosen Option : 1

Q. 5 What is meant by zero initial condition for a system?

- Ans
- ☐ 1. Zero input reference signal
 - ☐ 2. Zero stored energy

Question ID : 7368158211

Status : **Answered**

Chosen Option : 4

☒ 3. No initial movement of moving parts

☒ 4.

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

Q. 6 Induction Type Instruments can be employed for:

Ans

☒ 1. both AC and DC

☒ 2. direct current only

☒ 3. usually dc for heavy currents

☒ 4. alternating currents only

Question ID : 7368158203

Status : Answered

Chosen Option : 4

Q. 7 The electron-hole mobility ratio in Germanium is:

Ans

☒ 1. (2.8) : 1

☒ 2. 2 : 1

☒ 3. (1.2) : 1

☒ 4. 1 : 1

Question ID : 7368158247

Status : Answered

Chosen Option : 2

Q. 8 Zener breakdown occurs when reverse bias of voltage is approximately:

Ans

☒ 1. 2 - 4 V

☒ 2. 0.1 - 2 V

☒ 3. 4 - 6 V

☒ 4. 10 V

Question ID : 7368158251

Status : Answered

Chosen Option : 2

Q. 9 Which one of the following is the condition for Maximum power transfer in a circuit?

Ans

☒ 1. $R_L = R_s$

☒ 2. $R_L = 4R_s$

☒ 3. $R_L = R_s/2$

☒ 4. $R_L = 2R_s$

Question ID : 7368158188

Status : Answered

Chosen Option : 1

Q. 10 Match the following Instruments given in column 1 with the respective quantities they read in column 2.

Ans

☒ 1. 1-a, 2-c, 3-b, 4-d

☒ 2. 1-d, 2-c, 3-b, 4-a

☒ 3. 1-d, 2-b, 3-c, 4-a

☒ 4. 1-a, 2-b, 3-c, 4-d

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 : 4

Q.11 Wein's Bridge measures:

Ans

☒ 1. Power

☒ 2. Power factor

☒ 3. Frequency

☒ 4. Resistance

Question ID : 7368158207

Status : Answered

Chosen Option : 3

Q. 12 AC Bridges cannot be used for the direct measurement of:

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

Question ID : 7368158209

Status : Answered

Chosen Option : 2

Q. 13 Shunt generators are generally used for:

- Ans
- ☒ 1. arc welding
 - ☒ 2. charging batteries
 - ☒ 3. regenerative braking of dc locomotives
 - ☒ 4. elevators

Question ID : 7368158239

Status : Answered

Chosen Option : 2

Q. 14 स्थापना 3 ट्रांसफार्मर बैंक को आशवासित ना करे इसलिए त्रिफेज लोड तुलनात्मक रूप से लघु होता है, तो इनमें से कौन सा त्रिफेज ट्रांसफार्मर इस्तेमाल किया जाता है?

- Ans
- ☒ 1. V-V संबंधन
 - ☒ 2. डेल्टा-स्टार संबंधन
 - ☒ 3. T-T स्कॉट संबंधन
 - ☒ 4. Y-Y संबंधन

Question ID : 7368158230

Status : Answered

Chosen Option : 1

Q. 15 Deflection produced in Moving Iron Instruments is:

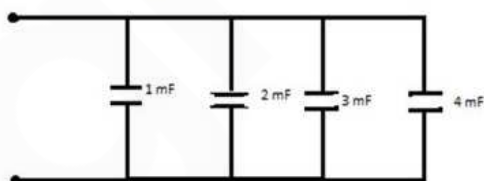
- Ans
- ☒ 1. inversely proportional to rms value of operating current
 - ☒ 2. proportional to rms value of operating current
 - ☒ 3. inversely proportional to square of rms value of operating current
 - ☒ 4. proportional to square of rms value of operating current

Question ID : 7368158208

Status : Answered

Chosen Option : 4

Q. 16 What will be the resultant capacitance of the given combination?



- Ans
- ☒ 1. 5 mF
 - ☒ 2. 0.48 mF
 - ☒ 3. 10 mF
 - ☒ 4. 0.67 mF

Question ID : 7368158199

Status : Answered

Chosen Option : 3

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

- Ans
- ✓ 1. 450
 - ✗ 2. 125
 - ✗ 3. 750
 - ✗ 4. 900

Question ID : 7368158240

Status : Answered

Chosen Option : 1

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

18

- Ans
- ✗ 1. It provides shorter magnetic path
 - ✓ 2. Natural cooling is quite good
 - ✗ 3. It gives better support against electromagnetic forces between current carrying transformer
 - ✗ 4. Magnetizing current is lesser as compared to core type

Question ID : 7368158226

Status : Answered

Chosen Option : 2

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

19

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. Only 1
 - ✓ 2. Only 3
 - ✗ 3. 2 and 3
 - ✗ 4. 1 and 2

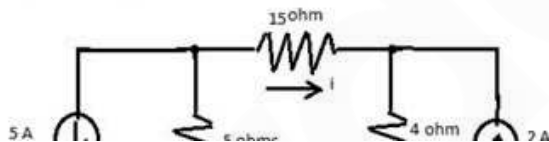
Question ID : 7368158235

Status : Answered

Chosen Option : 4

Q. Find out the value of i .

20



- Ans
- ✗ 1. 7.985 A
 - ✗ 2. 5.009 A
 - ✗ 3. 2.889 A
 - ✓ 4. 1.375 A

Question ID : 7368158183

Status : Answered

Chosen Option : 4

Q.2 If there were no copper losses in the motor;

1

- Ans
- ✗ 1. rotor runs at normal speed
 - ✗ 2. rotor does not run
 - ✗ 3. rotor runs at infinite speed
 - ✓ 4. rotor runs at synchronous speed

Question ID : 7368158244

Status : Answered

Chosen Option : 3

Q.2
2 Which of the following oscillates

1. Open loop system
2. Closed loop system

Which of the following is/are correct?

Question ID : 7368158214
Status : Answered
Chosen Option : 2

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

Q.23 For normal biasing, the emitter junction of BJT has:

Question ID : 7368158255
Status : Answered
Chosen Option : 2

- Ans
- ☒ 1. very high resistance
 - ☒ 2. high resistance
 - ☒ 3. low resistance
 - ☒ 4. no resistance

Q.24 क्रिस्टल में परमाणु कंपन की आवृत्ति को निम्नलिखित में से कौन निर्धारित करता है?

Question ID : 7368158218
Status : Answered
Chosen Option : 4

- Ans
- ☒ 1. क्रिस्टल का ऊष्मा तत्व
 - ☒ 2. क्रिस्टल का तापमान
 - ☒ 3. उसने पड़ोसी के साथ बनाए हुए आबंधों की कठोरता
 - ☒ 4. क्रिस्टल में प्रति इकाई परमाणुओं की संख्या

Q.25 For elements having energy gap more than 5 eV, act as:

Question ID : 7368158246
Status : Answered
Chosen Option : 2

- Ans
- ☒ 1. Semiconductors
 - ☒ 2. Insulators
 - ☒ 3. Superconductors
 - ☒ 4. Conductors

Q.26 A DC generator efficiency is maximum when:

Question ID : 7368158234
Status : Answered
Chosen Option : 3

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

Q.27 The magnitude of critical density in a superconductor depends on:

Question ID : 7368158222
Status : Answered
Chosen Option : 2

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

Q. 28 According to Super position theorem, a Voltage source of 0 V can be replaced by a:

- Ans
- ☒ 1. 5 V
 - ☒ 2. Cannot be replaced
 - ☒ 3. Open circuit
 - ☒ 4. Short circuit

Question ID : 7368158186

Status : Answered

Chosen Option : 4

Q. 29 What can be done in order to prevent Creeping in Energy meters?

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

Question ID : 7368158204

Status : Answered

Chosen Option : 1

Q. 30 What do we call an externally introduced signal which affects the controlled output?

- Ans
- ☒ 1. Feedback
 - ☒ 2. Stimulus
 - ☒ 3. Gain Control
 - ☒ 4. Signal

Question ID : 7368158213

Status : Answered

Chosen Option : 1

Q.31 A Varactor diode finds its applications in:

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

Which of these is/are CORRECT?

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

Question ID : 7368158253

Status : Answered

Chosen Option : 1

Q. 32 Which of the following increases Steady State Accuracy?

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

Question ID : 7368158212

Status : Answered

Chosen Option : 4

Q. 33 Which of the following is not an example of Intrinsic semiconductor?

- Ans
- ☒ 1. Germanium
 - ☒ 2. Selenium
 - ☒ 3. Silicon
 - ☒ 4. Argentum

Question ID : 7368158217

Status : Answered

Chosen Option : 4

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

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

Question ID : 7368158259

Status : Answered

Chosen Option : 2

Q. 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. Only 1
 - ☒ 4. 1 and 3

Question ID : 7368158206

Status : Answered

Chosen Option : 1

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

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

Question ID : 7368158200

Status : Answered

Chosen Option : 3

Q.3 Carbon electrodes are used in:

1. GLS lamps
2. Dry cells
3. Arc furnace

Which of the following is/are correct?

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

Question ID : 7368158221

Status : Answered

Chosen Option : 1

Q. निम्नलिखित में से कौन से उपकरण एक विशिष्ट समय अंतराल की घटनाओं का योजिकरण करता है?

- Ans
- ☒ 1. सूचक यंत्र
 - ☒ 2. सभी प्रकार के एनालॉग उपकरण
 - ☒ 3. अभिलेखन उपकरण
 - ☒ 4. समकालीन उपकरण

Question ID : 7368158201

Status : Answered

Chosen Option : 4

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

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

Question ID : 7368158223

Status : Answered

Chosen Option : 1

Q. 40 Materials with low resistivity do not find their applications in:

- Ans
- ☒ 1. heating element
 - ☐ 2. transformers
 - ☐ 3. house wiring
 - ☐ 4. transmission lines

Question ID : 7368158216

Status : Answered

Chosen Option : 1

Q. 41 In armature winding, the distance between the segments to which the ends of coils are connected is?

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

Question ID : 7368158231

Status : Answered

Chosen Option : 3

Q. 42 If two or more components are connected in _____ they have the same potential difference (voltage) across their ends.

- Ans
- ☒ 1. parallel
 - ☐ 2. opposite
 - ☐ 3. parallel-series
 - ☐ 4. series

Question ID : 7368158198

Status : Answered

Chosen Option : 1

Q. 43 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. Only 3
 - ☐ 2. 1 and 2
 - ☒ 3. None of the other options
 - ☐ 4. 2 and 3

Question ID : 7368158241

Status : Answered

Chosen Option : 2

Q. 44 Which of the following generator has zero percent regulation?

- Ans
- ☐ 1. Both Under compound and Flat compound
 - ☐ 2. Under compound
 - ☐ 3. Over compound
 - ☒ 4. Flat compound

Question ID : 7368158238

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. 50%
 - ☐ 2. 41.4%
 - ☒ 3. 75%
 - ☐ 4. 66.6%

Question ID : 7368158227

Status : Answered

Chosen Option : 3

Q. 46 The point of intersection of two or more branches in any network is known as:

- Ans
- ☐ 1. Branch

Question ID : 7368158182

Status : Answered

- ☒ 2. Node
- ☐ 3. Twig
- ☐ 4. Path

Chosen Option : 2

Q. 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?

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

Question ID : 7368158215

Status : Answered

Chosen Option : 2

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

- Ans
- ☐ 1. parabolas
 - ☐ 2. ellipses
 - ☐ 3. hyperbolas
 - ☒ 4. straight lines

Question ID : 7368158243

Status : Answered

Chosen Option : 3

Q.4 FET is a _____ controlled device.

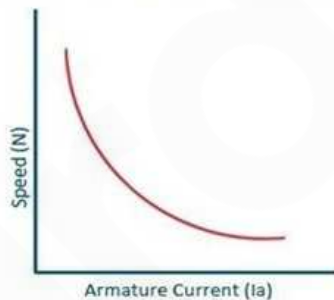
- Ans
- ☐ 1. current
 - ☐ 2. resistance
 - ☐ 3. impedance
 - ☒ 4. voltage

Question ID : 7368158258

Status : Answered

Chosen Option : 4

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



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

Question ID : 7368158224

Status : Answered

Chosen Option : 4

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

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

Question ID : 7368158196

Status : Answered

Chosen Option : 1

Q. 52 The real name of MOSFET is IG FET because the gate here is:

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

Question ID : 7368158257

Status : Answered

Chosen Option : 2

Q. 53 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 : Answered

Chosen Option : 4

Q. 54 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. 55 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. R is correct but A is not correct
 - ☒ 2. A is correct but R is not correct
 - ☒ 3. A is correct and R is the suitable reason for it
 - ☒ 4. A is correct but R is not a suitable reason for it

Question ID : 7368158245

Status : Answered

Chosen Option : 3

Q. 56 In a BJT, collector region width is maximum when it:

- 1. collects maximum number of charge carrier

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

Question ID : 7368158254

Status : Answered

Chosen Option : 3

Q. 57 How many crystal systems are known till date?

- Ans
- ☒ 1. 7
 - ☒ 2. 12
 - ☒ 3. 6
 - ☒ 4. 10

Question ID : 7368158219

Status : Answered

Chosen Option : 1

Q. 58 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. 2 and 3
- ☒ 2. Only 2
- ☒ 3. 1 and 2
- ☒ 4. 1 and 3

Question ID : 7368158232

Status : Answered

Chosen Option : 4

Q. 59 For a Lap wound generator, the number of parallel paths in armature is taken to be:

- Ans
- ☒ 1. 4
- ☒ 2. 2
- ☒ 3. number of poles/2
- ☒ 4. number of poles

Question ID : 7368158233

Status : Answered

Chosen Option : 4

Q. 60 Iron losses in a transformer is a sum of:

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

Question ID : 7368158228

Status : Answered

Chosen Option : 3

Q. 61 Find the Thevenin's voltage V_{th} across 2 ohm resistance.



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

Question ID : 7368158187

Status : Answered

Chosen Option : 4

Q. 62 A series or parallel RLC circuit is said to be over damped if:

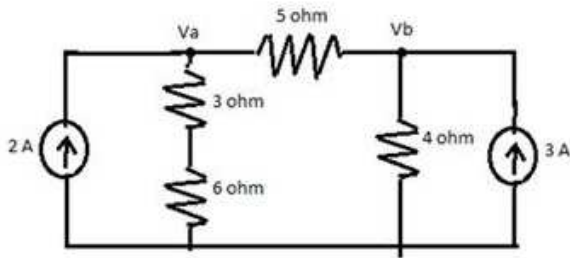
- Ans
- ☒ 1. $\alpha = \omega n$
- ☒ 2. $\alpha > \omega n$
- ☒ 3. $\alpha < \omega n$
- ☒ 4. $2\alpha = \omega n$

Question ID : 7368158194

Status : Answered

Chosen Option : 2

Q. 63 Find out the node voltages of the given circuit.



- Ans
- ☒ 1. $V_a = 0 \text{ V}$, $V_b = 120 \text{ V}$
 - ☒ 2. $V_a = 1.89 \text{ V}$, $V_b = 16 \text{ V}$
 - ☒ 3. $V_a = 0 \text{ V}$, $V_b = 0 \text{ V}$
 - ☒ 4. $V_a = 15 \text{ V}$, $V_b = 13.3 \text{ V}$

Question ID : 7368158181

Status : Answered

Chosen Option : 4

Q. 64 A 12-pole induction motor has a frequency of 60 Hz. Its synchronous speed would be:

- Ans
- ☒ 1. 600 rpm
 - ☒ 2. 480 rpm
 - ☒ 3. 660 rpm
 - ☒ 4. 500 rpm

Question ID : 7368158242

Status : Answered

Chosen Option : 1

Q. 65 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. 3.33 ms
 - ☒ 2. 5.98 ms
 - ☒ 3. 0.32 ms
 - ☒ 4. 1.66 ms

Question ID : 7368158195

Status : Not Attempted

Chosen Option : --

Q. 66 ट्रांसफार्मर्स को समांतर क्रम में _____ की आपूर्ति करने हेतु संयोजित किया जाता है।

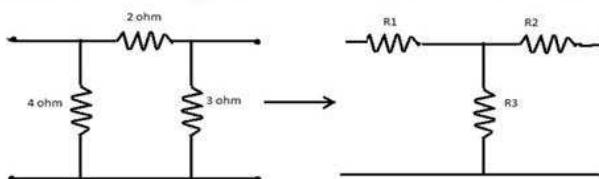
- Ans
- ☒ 1. विद्यमान ट्रांसफार्मर में निर्धारित श्रेणी से कम भार
 - ☒ 2. विद्यमान ट्रांसफार्मर में निर्धारित श्रेणी से अधिक भार
 - ☒ 3. विद्यमान ट्रांसफार्मर में निर्धारित श्रेणी से बराबर भार
 - ☒ 4. विद्यमान ट्रांसफार्मर में निर्धारित श्रेणी से कम या बराबर भार

Question ID : 7368158229

Status : Answered

Chosen Option : 4

Q. 67 In the given Delta-wye conversion, Find the value of R_1 , R_2 & R_3 .



- Ans
- ☒ 1. 9/12, 9/6, 9/8
 - ☒ 2. 6/9, 12/9, 8/9
 - ☒ 3. 8/9, 6/9, 12/9

Question ID : 7368158190

Status : Answered

Chosen Option : 3

✗ 4. 9/6, 9/12, 9/8

Q. 68 For ammeter shunts, which one of the following is not a possible requirement?

Ans ✓ 1.

It should have high thermal automotive force

✗ 2.

It should carry current without excessive temperature rise

✗ 3. Its resistance should not vary with time

✗ 4. Its temperature coefficient must be low

Question ID : 7368158205

Status : Answered

Chosen Option : 1

Q. 69 Distribution Transformers:

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

Which of these is/are CORRECT?

Ans ✗ 1. Only 2

✗ 2. Both 1 and 2

✓ 3. Only 1

✗ 4. Neither 1 nor 2

Question ID : 7368158225

Status : Answered

Chosen Option : 2

Q. 70 A tunnel diode is fabricated from:

Ans ✗ 1. Ge

✗ 2. Si

✗ 3. GaAs

✓ 4. Ge or GaAs

Question ID : 7368158252

Status : Answered

Chosen Option : 3

Q. 71 In FET, the np region between source and gate is:

Ans ✗ 1. forward biased

✗ 2. forward or reverse biased

✓ 3. reverse biased

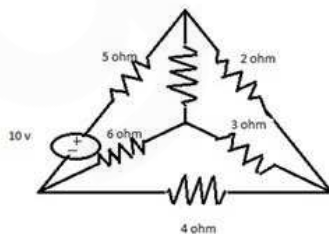
✗ 4. unbiased

Question ID : 7368158256

Status : Answered

Chosen Option : 2

Q. 72 What will be the number of tie set currents in the given circuit?



Ans ✗ 1. 4

✓ 2. 3

✗ 3. 6

✗ 4. 1

Question ID : 7368158185

Status : Answered

Chosen Option : 1

Q. 73 According to Tellegen's theorem, which one of the following is correct?

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

Question ID : 7368158189

Status : Answered

Chosen Option : 1

Q. 74 Assertion A: Si can be operated at high temperature
Reason R: Energy gap of Ge is more than Si

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

Question ID : 7368158249

Status : Answered

Chosen Option : 2

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

- Ans ☒ 1. Fermi level
- ☐ 2. Valence energy
- ☐ 3. Exergy
- ☐ 4. Conduction energy

Question ID : 7368158248

Status : Answered

Chosen Option : 2

Q. 76 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 AB amplifier
- ☐ 2. Class A amplifier
- ☐ 3. Class B amplifier
- ☒ 4. Class C amplifier

Question ID : 7368158260

Status : Answered

Chosen Option : 4

Q. 77 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.

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

Question ID : 7368158236

Status : Answered

Chosen Option : 3

Q. 78 In a RLC circuit Inductance is 20 mH and capacitance is 200 micro Farad. Find the resonance frequency of the circuit.

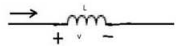
- Ans ☐ 1. 1000 rad/sec
- ☐ 2. 250 rad/sec
- ☒ 3. 500 rad/sec
- ☐ 4. 50 rad/sec

Question ID : 7368158193

Status : Not Attempted

Chosen Option : --

Q. 79 For the given circuit find the value of v at $t = 12$ ms. If current is given as $i = 10te^{-(100t)}$ A. (Where $L = 25$ mH).



- Ans
- ☒ 1. 34.09 mV
 - ☒ 2. -0.987 mV
 - ☒ 3. -15.06 mV
 - ☒ 4. 87.99 mV

Question ID : 7368158191

Status : Not Attempted

Chosen Option : --

Q. 80 कार्बन प्रतिरोध का संयोजन क्या है?

- Ans
- ☒ 1. चूर्णित कोयला
 - ☒ 2. लकड़ी का पिसा हुआ कोयला
 - ☒ 3. ठीक से अलग किया हुआ कार्बन ब्लैक
 - ☒ 4. कागजी राख

Question ID : 7368158220

Status : Answered

Chosen Option : 3

Section : General Knowledge

Q. 1 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 Kuch
 - ☒ 4. Gulf of Sinhala

Question ID : 7368158261

Status : Answered

Chosen Option : 4

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

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

Question ID : 7368158269

Status : Answered

Chosen Option : 2

Q. 3 निम्नलिखित में से कौन सी ऊर्जा मापन की एक इकाई नहीं है?

- Ans
- ☒ 1. जूल (Joules)
 - ☒ 2. कैलोरी (Calories)
 - ☒ 3. फैदम (Fathoms)
 - ☒ 4. अर्ग (Ergs)

Question ID : 7368158268

Status : Answered

Chosen Option : 3

Q. 4 The Indian constitution came into force on:

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

Question ID : 7368158266

Status : Answered

Chosen Option : 3

Q. 5 Param Yuva II, designed by C-DAC in PUNE is a type of:

- Ans
- ☒ 1. Space shuttle
 - ☒ 2. Bullet train

Question ID : 7368158267

Status : Answered

Chosen Option : 4

- ☒ 3. Missile
- ☒ 4. Super computer

Q. 1928 में गठित किये गए HSRA समूह का पूरा नाम क्या है, जिसके एक सदस्य 6 शहीद भगत सिंह थे?

- Ans ☒ 1. हिंदुस्तान सोशलिस्ट रिपब्लिकन आर्मी
- ☒ 2. हिंदुस्तान सोशलिस्ट रेनेसां आर्मी
- ☒ 3. हिंदुस्तान सोशलिस्ट रिवाॅल्यूशनरी आर्मी
- ☒ 4. हिंदुस्तान सोशलिस्ट रेबेल आर्मी

Question ID : 7368158262

Status : Answered

Chosen Option : 1

Q. 2016 का 'के. वीरमणि सामाजिक न्याय पुरस्कार' किसे दिया गया है?

- Ans ☒ 1. अखिलेश यादव
- ☒ 2. के. चंद्र शेखर राव
- ☒ 3. चंद्रबाबू नायडू
- ☒ 4. नीतिश कुमार

Question ID : 7368158270

Status : Answered

Chosen Option : 4

Q. विदेशी विनिमय से संबंधित शब्द FERA का पूरा नाम है:

- Ans ☒ 1. फ़ॉरेन एक्सचेंज रीइंबर्समेंट एक्ट
- ☒ 2. फ़ॉरेन एक्सचेंज रिम्युनरेशन एक्ट
- ☒ 3. फ़ॉरेन एक्सचेंज रेस्ट्रिक्शन एक्ट
- ☒ 4. फ़ॉरेन एक्सचेंज रेग्युलेशन एक्ट

Question ID : 7368158264

Status : Answered

Chosen Option : 4

Q. Which Indian state has a separate constitution?

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

Question ID : 7368158265

Status : Answered

Chosen Option : 1

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

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

Question ID : 7368158263

Status : Answered

Chosen Option : 2

Section : Reasoning

Q. R, S, M तथा G नामक चार भाई अपनी वार्षिक पारिवारिक संपत्ति कि लड़ाई के लिए एक गोल मेज में एक दूसरे के आमने-सामने बैठे हैं। इनके व्यवसाय हैं - लेखक, बायोलॉजिस्ट, केमिस्ट और चिकित्सक, लेकिन ठीक इसी क्रम में हो ऐसा जरूरी नहीं है। G ने बैठक कि कार्यसूची निर्धारित करते हुए आरंभ किया, और उसके पश्चात चिकित्सक ने एक लंबा व्याख्यान दिया कि क्या सही है और क्या गलत है। चिकित्सक के सामने बैठा है, और केमिस्ट के बगल में R बैठा है। M पूरी बैठक में खामोश रहता है, और केमिस्ट बिलकुल अंत में बोलता है।

R का पेशा बताएं:

Question ID : 7368158274

Status : Answered

Chosen Option : 4

s ☒ 1. अपर्याप्त आंकड़े

☒ 2. चिकित्सक

☒ 3. लेखक

☒ 4. बायोलॉजिस्ट

Q. 2 ईरान का बगदाद से ठीक वही संबंध है, जो कि ऑस्ट्रिया का _____ से संबंध है।

Ans ☒ 1. विएना

☒ 2. ओटावा

☒ 3. लिस्बन

☒ 4. एथेन्स

Question ID : 7368158273

Status : Answered

Chosen Option : 1

Q. 3 यदि X, Q की मौसी है, जो कि Z का पुत्र है, और Z, E का दामाद है, तो X का E से क्या रिश्ता है?

Ans ☒ 1. बहन

☒ 2. माँ

☒ 3. पुत्री

☒ 4. मौसी (Aunt)

Question ID : 7368158271

Status : Answered

Chosen Option : 3

Q. 4 यदि एक विशिष्ट संकेत भाषा में GUN को HVO लिखा जाता है, तो IBU को क्या लिखा जाएगा?

Ans ☒ 1. HAT

☒ 2. HEN

☒ 3. NOT

☒ 4. RAT

Question ID : 7368158278

Status : Answered

Chosen Option : 1

Q. 5 In a certain code, KNOWLEDGE is coded as 256535475, how is GENERAL coded in that code?

Ans ☒ 1. 7555931

☒ 2. 7545993

☒ 3. 7555913

☒ 4. 7969393

Question ID : 7368158277

Status : Answered

Chosen Option : 3

Q. 6 श्री. C बाएँ से नौवीं कुर्सी पर बैठे हैं, तथा उनका मुख उत्तर दिशा की ओर है, दाएँ तरफ से सतराहवीं कुर्सी पर बैठे हैं। एक पंक्ति में कुर्सियों की कुल संख्या कितनी है?

Ans ☒ 1. 23 कुर्सियाँ

☒ 2. 25 कुर्सियाँ

☒ 3. 26 कुर्सियाँ

☒ 4. 40 कुर्सियाँ

Question ID : 7368158276

Status : Answered

Chosen Option : 2

Q. 7 Identify the similar set of numbers.

(64, 81, 144)

Ans ☒ 1. (464, 467, 4840)

☒ 2. (256, 324, 361)

☒ 3. (21, 34, 14)

Question ID : 7368158272

Status : Answered

Chosen Option : 2

✗ 4. (789, 491, 68)

Q. 8 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. a a a b b
 - ✓ 2. a b b b b
 - ✗ 3. b b a a
 - ✗ 4. a b a b

Question ID : 7368158275

Status : Answered

Chosen Option : 2

Q. 9 A और B ने एक स्थायी जगह से आरंभ किया। A उत्तर की दिशा में 3 कि.मी. चलने के पश्चात दाएं तरफ मुड़कर 4 कि.मी. चलता है। B पश्चिम दिशा में 5 कि.मी. चलने के पश्चात दाएं तरफ मुड़कर 3 कि.मी. चलता है। अब A और B एक दूसरे से कितने दूर हैं?

- Ans
- ✗ 1. 4 कि.मी.
 - ✗ 2. 5 कि.मी.
 - ✗ 3. 8 कि.मी.
 - ✓ 4. 9 कि.मी.

Question ID : 7368158279

Status : Answered

Chosen Option : 4

Q. 10 Determine the pattern and fill in the missing number.
3, 8, 18, 38, ____, 158

- Ans
- ✓ 1. 78
 - ✗ 2. 65
 - ✗ 3. 60
 - ✗ 4. 67

Question ID : 7368158280

Status : Answered

Chosen Option : 1



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