UPPCL AE EE

Previous Year Paper

2 April 2022 (Shift 1)

UTTAR PRADESH POWER CORPORATION LTD.

Participant ID	
Participant Name	
Test Center Name	
Test Date	02/04/2022
Test Time	9:00 AM - 12:00 PM
Subject	AE Electrical and Power

Section : **Domain Knowledge**

Q.1 Which plant yields no standby loss?

Ans

✗ A. Nuclear power plant

✓ B. Hydro power plant

✗ C. Diesel power plant

✗ D. Steam power plant

Question ID : **63068053527**
Status : **Answered**
Chosen Option : **B**

Q.2 The minimum value of $x^2 + y^2 + z^2$ subject to the condition $xyz = 8$ is:

Ans

✔ A. 12

✘ B. 4

✘ C. 27

✘ D. 3

Question ID : **63068064913**
Status : **Answered**
Chosen Option : **A**

Q.3 **Which of the following formulas represents the electric field due to n number of discrete charges?**

Ans

✘ A. $\frac{Q_1}{4\pi\varepsilon_0 R_1^2}\,\bar{a}_{R1}$

✔ B. $\frac{1}{4\pi\varepsilon_0}\sum_{i=1}^{n}\frac{Q_1}{R_i^2}\bar{a}_{Ri}$

✘ C. $\frac{Q}{4\pi\varepsilon_0 R^2}\,\bar{a}_R$

✘ D. $\frac{Q_n}{4\pi\varepsilon_0 R_n^2}\,\bar{a}_{Rn}$

Question ID : **63068061873**
Status : **Answered**
Chosen Option : **B**

Q.4 **Calculate the double line ground fault current of a network, if positive, negative and zero sequence reactance of the network are 0.08 p.u., 0.07p.u. and 0.05p.u., respectively.**

Ans

✗ A. 12.5 p.u.

✓ B. 16 p.u.

✗ C. 11.5 p.u.

✗ D. 15 p.u.

Question ID : **63068053494**
Status : **Answered**
Chosen Option : **B**

Q.5 The linear time invariant system is represented by the state space model as

$$\frac{dX}{dt} = AX + BU$$
$$Y = CX + DU$$

Consider n= number of state variables, m= number of inputs, p= number of outputs. The state transition matrix Ø(t)is given by:

Ans

✗ A. $\emptyset(t) = [(SI-A)]^{-1}$

✓ B. $\emptyset(t) = L^{-1}\ [(SI-A)]^{-1}$

✗ C. $\emptyset(t) = L[(SI-A)]^{-1}$

✗ D. $\emptyset(t) = L^{-1}\ [(SI-A)]$

Question ID : **63068063549**
Status : **Answered**
Chosen Option : **B**

Q.6 _____ **has the least transport cost.**

Ans

✔ A. Hydro power plant

✗ B. Nuclear power plant

✗ C. Steam power plant

✗ D. Diesel power plant

Question ID : **63068053510**
Status : **Answered**
Chosen Option : **A**

Q.7 **Which of the following types of vectors is defined by point P as the directed distance from the origin O to P?**

Ans

✔ A. Position vector r

✗ B. Directed vector r_d

✗ C. Distance vector r_{op}

✗ D. Centred vector r_c

Question ID : **63068061778**
Status : **Answered**
Chosen Option : **A**

Q.8 A class has 10 boys and 5 girls. 3 students are selected at random one after the other. The probability that the 1st and the 3rd are of the same gender and the 2nd is of the opposite gender is:

Ans

✗ A. $\frac{4}{21}$

✗ B. $\frac{8}{21}$

✗ C. $\frac{2}{21}$

✓ D. $\frac{5}{21}$

Question ID : **63068065297**
Status : **Answered**
Chosen Option : **D**

Q.9 The integral cycle control method is used in heating loads and motor control drives because of_____.

Ans

✗ A. zero-voltage switching

✗ B. the supply voltage control

✗ C. the average load power control

✓ D. less harmonics

Question ID : **63068054371**
Status : **Answered**
Chosen Option : **D**

Q.10 ZVS converters are used for _____applications.

Ans

✗ A. load having high power requirements

✓ B. constant load

✗ C. load having low current requirements

✗ D. load having high voltage requirements

Question ID : **63068066252**
Status : **Answered**
Chosen Option : **D**

Q.11 The ripples at the output of the rectifier circuit can be remove by connecting:

Ans

✗ A. a resistance in series with load resistance

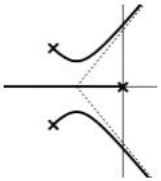
✗ B. a resistance in parallel to load resistance

✓ C. a capacitor in parallel to load resistance

✗ D. a capacitor in series with load resistance.

Question ID : **63068064025**
Status : **Answered**
Chosen Option : **C**

Q.12 Consider the control system which has root locus plot as given. The open loop transfer function is:



Ans

✔ A. $\dfrac{\frac{K}{S}}{2+2S+S^2}$

✘ B. $\dfrac{K}{(S+3)(S+1)(S+2)}$

✘ C. $\dfrac{K(S+2)}{S(S+1)}$

✘ D. $\dfrac{K}{S(S+1)(S+2)}$

Question ID : **63068063564**
Status : **Answered**
Chosen Option : **A**

Q.13 **Which type of system is work as X axis which rotated towards Y axis through a smaller angle than this rotation causes the upward movement in the Z axis?**

Ans

✘ A. Left handed rectangular coordinate system

✘ B. Right handed cylindrical coordinate system

✔ C. Right handed rectangular coordinate system

✘ D. Left handed cylindrical coordinate system

Question ID : **63068061777**
Status : **Not Answered**
Chosen Option : **--**

Q.14 **Which of the following represents the differential vector surface area normal to r direction?**

Ans

✗ A. $dS = rdrd\emptyset$

✗ B. $dS = r\sin\theta drd\theta$

✓ C. $dS = r^2 \sin\theta d\theta d\emptyset$

✗ D. $dS = rdrd\theta$

Question ID : **63068061847**
Status : **Answered**
Chosen Option : **C**

Q.15 **Cycloconverter converts_____.**

Ans

✗ A. DC voltage to DC voltage

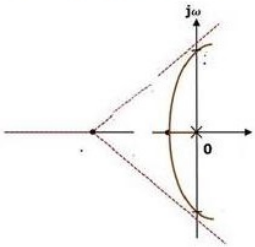
✓ B. AC voltage to AC voltage

✗ C. AC voltage to DC voltage

✗ D. DC voltage to AC voltage

Question ID : **63068064406**
Status : **Answered**
Chosen Option : **B**

Q.16 Consider the control system which has root locus plot as given. The open loop transfer function is given by:



Ans

✗ A. $\frac{K}{(S+3)(S+1)(S+2)}$

✓ B. $\frac{K}{S(S+1)(S+2)}$

✗ C. $\frac{K(S+4)}{(S+1)(S+2)}$

✗ D. $\frac{K}{S(S-1)(S+2)}$

Question ID : **63068063565**
Status : **Answered**
Chosen Option : **B**

Q.17 The vectors which lie in the same plane are known as_____.

Ans

✗ A. parallel planar

✓ B. co-planar

✗ C. co-vectors

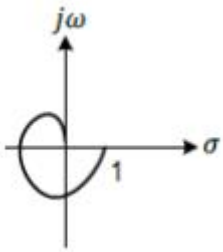
✗ D. symmetry planar

Question ID : **63068061834**
Status : **Answered**
Chosen Option : **B**

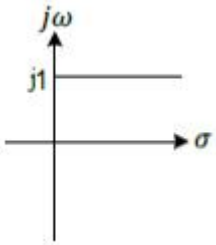
Q.18 The polar plot for the loop gain $G(jw)H(jw) = \frac{1}{jw+1}$ is:

Ans

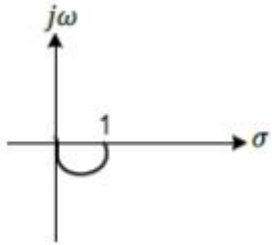
✗ A.



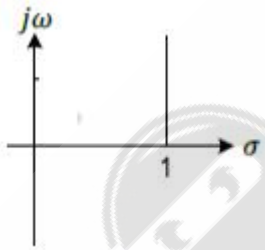
✗ B.



✓ C.



✗ D.



Question ID : **63068063571**
Status : **Answered**
Chosen Option : **C**

Q.19 **The flux in a magnetic core is varying sinusoidally with a frequency of 600 Hz. The eddy current loss is found to be16 W when the maximum flux density in the core is 0.6 wb/m^2. What would be the eddy current loss if the flux density is doubled at the same frequency?**

Ans

✗ A. 16 W

✗ B. 32 W

✓ C. 64 W

✗ D. 8 W

Question ID : **63068061736**
Status : **Answered**
Chosen Option : **C**

Q.20 The minimum value of $f(x, y) = xy + \frac{3}{x} + \frac{9}{y}$ is:

Ans

✗ A. 12

✓ B. 9

✗ C. 3

✗ D. 15

Question ID : **63068064910**
Status : **Answered**
Chosen Option : **B**

Q.21 The linear time invariant system is represented by the state space model as

$$\frac{dX}{dt} = AX + BU$$
$$Y = CX + DU$$

Consider n= number of state variables, m= number of inputs, p= number of outputs. The determinant of [SI-A] is the:

Ans

✔ A. characteristics equation

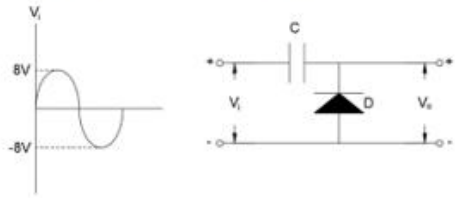
✘ B. state vector

✘ C. velocity vector

✘ D. zeros of the system

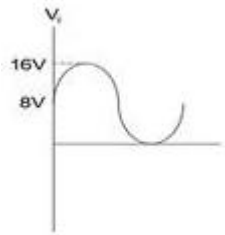
Question ID : **63068063548**
Status : **Answered**
Chosen Option : **A**

Q.22 The output waveform for the given circuit is _____. (The diodes are ideal.)

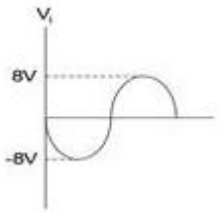


Ans

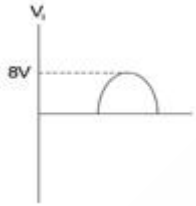
✔ A.



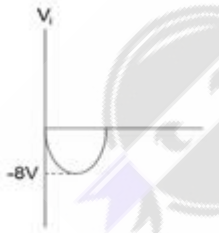
✘ B.



✘ C.



✘ D.



Question ID : **63068065479**
Status : **Answered**
Chosen Option : **A**

Q.23 **A linear magnetic circuit has a flux linkage of 2 wb-turn when a current of 20 A flows through its coil. What is the energy stored in the magnetic field of the coil?**

Ans

✗ A. 80 J

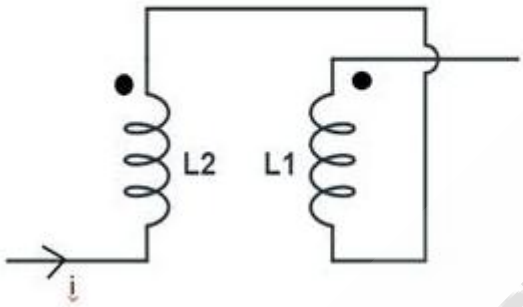
✗ B. 40 J

✗ C. 10 J

✓ D. 20 J

Question ID : **63068061763**
Status : **Answered**
Chosen Option : **D**

Q.24 The Leq for the circuit shown in the given figure is:



Ans

✗ A. Leq = L1 + L2 + M

✗ B. Leq = L1 + L2 − 2M

✓ C. Leq = L1 + L2 + 2M

✗ D. Leq = L1 + L2 − M

Question ID : **63068064295**
Status : **Answered**
Chosen Option : **C**

Q.25 Which of the following is NOT affected by the change in steam supply?

Ans

✗ A. Output power

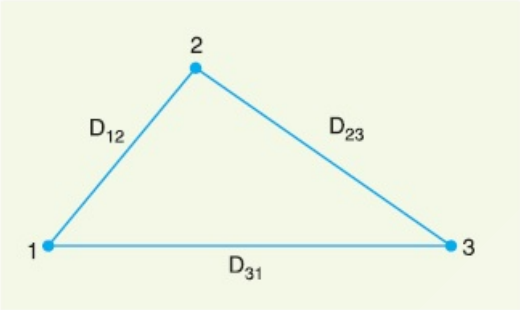
✓ B. Generated voltage

✗ C. Torque angle

✗ D. Power factor

Question ID : **63068056389**
Status : **Answered**
Chosen Option : **B**

Q.26



Calculate the equivalent mutual-GMD of the conductor arrangement.

Given: D_{12}= 2.5 m, D_{23}= 4.5 m, D_{12}= 2 m.

Ans

✗ A. 3.54 m

✗ B. 4.74 m

✓ C. 2.82 m

✗ D. 22.5 m

Question ID : **63068053491**
Status : **Answered**
Chosen Option : **C**

Q.27 **In a single excited linear magnetic circuit, the co-energy density can be expressed in terms of the flux density and field intensity by which of the following expressions?**

Ans

✗ A. $\frac{1}{2} \times H \times B^2$

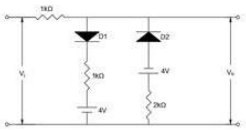
✗ B. $H \times B$

✗ C. $\frac{1}{2} \times H^2 \times B$

✓ D. $\frac{1}{2} \times H \times B$

Question ID : **63068061765**
Status : **Answered**
Chosen Option : **D**

Q.28 In the given figure, the diodes are ideal and $V_i = 10\sin\omega t$. The minimum and maximum values of the output signals are _____ and _____, respectively.



Ans

✓ A. –8 V, 7V

✗ B. –4 V, 5V

✗ C. –10 V, 6V

✗ D. –8 V, 8V

Question ID : **63068064020**
Status : **Answered**
Chosen Option : **A**

Q.29 **As compared to other members of the logic family, power dissipation of CMOS is:**

Ans

✗ A. zero

✓ B. extremely low

✗ C. extremely high

✗ D. moderate

Question ID : **63068064101**
Status : **Answered**
Chosen Option : **B**

Q.30 **When measuring power with an electrodynamometer wattmeter in a circuit where the load current is large:**

Ans

✗ A. the pressure coil should be connected on the supply side

✗ B. it is immaterial whether the pressure coil or the current coil is on the load side

✓ C. the pressure coil should be connected on the load side

✗ D. the current coil should be connected on the load side

Question ID : **63068061726**
Status : **Answered**
Chosen Option : **C**

Q.31 **Pin type insulators are generally used up to ____ kV.**

Ans

✗ A. 132

✗ B. 66

✓ C. 33

✗ D. 11

Question ID : **63068053487**
Status : **Answered**
Chosen Option : **C**

Q.32 At unity power factor, the armature reaction of an alternator is:

Ans

✗ A. partly distorting

✗ B. demagnetising

✓ C. distorting

✗ D. magnetising

Question ID : **63068056379**
Status : **Answered**
Chosen Option : **C**

Q.33 If C is a simple closed curve around a point a = 0, then $f(a) = \oint_C \frac{idz}{z^n} = ?$

Ans

✗ A. 2πi

✗ B. 1

✓ C. 0

✗ D. -2π

Question ID : **63068064940**
Status : **Answered**
Chosen Option : **C**

Q.34 The MMF method gives a regulation _____ than the actual performance of the machine. For this reason, it is known as _____.

Ans

✗ A. higher; optimistic method

✗ B. higher; pessimistic method

✓ C. lower; optimistic method

✗ D. lower; pessimistic method

Question ID : **63068056384**
Status : **Answered**
Chosen Option : **C**

Q.35 Which of the following statements is correct?

Ans

✗ A. Under excited alternator will operate at lagging power factor.

✗ B. Overexcited alternator will operate at leading power factor.

✗ C. Overexcited alternator will operate at unity power factor.

✓ D. Overexcited alternator will operate at lagging power factor.

Question ID : **63068056387**
Status : **Answered**
Chosen Option : **D**

Q.36 A uniform 2 wire DC distributor of 200 metres length is loaded with 2 ampere/metre. Resistance of single wire is 0.4 ohm/kilometre. Calculate the maximum voltage drop, if the distributor is fed from one end.

Ans

✗ A. 24V

✓ B. 32V

✗ C. 16 V

✗ D. 8V

Question ID : **63068066259**
Status : **Answered**
Chosen Option : **B**

Q.37 At full load, the power factor of universal series motor is about:

Ans

✗ A. 0.8

✗ B. 0.7

✓ C. 0.9

✗ D. 0.65

Question ID : **63068056371**
Status : **Not Answered**
Chosen Option : **--**

Q.38 **Which of the following shows the differential volume of the differential element formed in the spherical coordination system?**

Ans

✗ A. dv = dxdydz

✗ B. dv = r^2 sinØdldθdØ

✗ C. dv = dSdx

✓ D. dv = r^2 sinθdrdθdØ

Question ID : **63068061846**
Status : **Answered**
Chosen Option : **D**

Q.39 **A synchronous condenser behaves as a/an:**

Ans

✓ A. capacitor

✗ B. resistor

✗ C. conductor

✗ D. inductor

Question ID : **63068056361**
Status : **Answered**
Chosen Option : **A**

Q.40 **A 3-phase 12000 kW, 6 kV, 50 Hz, 180 rpm synchronous motor has per synchronous reactance of 2.4 ohm. If the generated back EMF is 6.8 kV, then calculate the maximum power developed.**

Ans

✗ A. 23 MW

✓ B. 17 MW

✗ C. 51 MW

✗ D. 46 MW

Question ID : **63068056351**
Status : **Not Attempted and Marked For Review**
Chosen Option : **--**

Q.41 Match the columns.

Types of Digital Voltmeters(DVM)	Construction features
(A) Basic ramp type DVM	(1) Uses D/A converter
(B) Staircase ramp type DVM	(2) True average value of input voltage using voltage frequency converter
(C) Integrating type DVM	(3) Servo driven potentiometer is commonly used
(D) Continuous balance type DVM	(4) Does not use D/A converter

Ans
- ✗ A. A–1, B–2, C–4, D–3
- ✓ B. A–4, B–1, C–2, D–3
- ✗ C. A–1, B–2, C–3, D–4
- ✗ D. A–4, B–1, C–3, D–2

Question ID : **63068066280**
Status : **Answered**
Chosen Option : **B**

Q.42 **Find the EMF of the battery if the length of a wire of a potentiometer is 250 cm and the EMF of its standard cell is 10 volt. It is employed to measure the EMF of a battery whose internal resistance is 0.5Ωand. If the balance point is obtained at l=25 cm from the positive end.**

Ans

✗ A. $\frac{1}{2}$ V

✓ B. 1 V

✗ C. 1.5 V

✗ D. 2 V

Question ID : **63068066268**
Status : **Answered**
Chosen Option : **B**

Q.43 **A point in space is represented by the ordered triple (r,θ,z) in the cylindrical coordinate system, where (r,θ) are____.**

Ans

✗ A. cartesian coordinates of the point's projection in the yz -plane

✗ B. cartesian coordinates of the point's projection in the xy -plane

✓ C. polar coordinates of the point's projection in the xy -plane

✗ D. polar coordinates of the point's projection in the yz -plane

Question ID : **63068061794**
Status : **Answered**
Chosen Option : **C**

Q.44 The power rating of capacitor start induction motor lies in the range of:

Ans

✗ A. 50 W to 7.5 kW

✗ B. 50 W to 5 kW

✓ C. 120 W to 7.5 kW

✗ D. 120 W to 5 kW

Question ID : **63068056365**
Status : **Answered**
Chosen Option : **B**

Q.45 For the driving point impedance N(s) (with common factors p(s) and q(s) cancelled):

Ans

✗ A. the poles and zeros of N(s) must be infinity if imaginary or complex

✗ B. the poles and zeros of N(s) must be the same if imaginary or complex

✓ C. the poles and zeros of N(s) must be complex conjugate if imaginary or complex

✗ D. the poles and zeros of N(s) must be zero if imaginary and complex

Question ID : **63068064293**
Status : **Answered**
Chosen Option : **C**

Q.46 For the unity feedback system with the open loop transfer function $G(s) = \frac{K}{s(S+1)(S+2)}$, the number of valid branches of root locus is equal to:

Ans

✗ A. 2

✓ B. 3

✗ C. 1

✗ D. 0

Question ID : **63068063538**
Status : **Answered**
Chosen Option : **B**

Q.47 The solution of sinh (z+2π) = 0 is:

Ans

✗ A. $z = \frac{i\pi(2k+1)}{2}$

✓ B. $z = \pi(ik + 2)$

✗ C. $z = i\pi k$

✗ D. $z = \frac{\pi(4-2ki-1)}{2}$

Question ID : **63068064936**
Status : **Answered**
Chosen Option : **C**

Q.48 A coil of 100 turns is rotated with an angular speed of 50π rad/s in a magnetic field of uniform density of 0.05 T. The mean area per turn is 40 cm^2. What is the emf induced in the coil in volts when the coil has rotated through 30° from the position of zero emf?

Ans

✗ A. π

✓ B. $\frac{\pi}{2}$

✗ C. $\frac{\pi\sqrt{3}}{2}$

✗ D. $\frac{\pi}{4}$

Question ID : **63068061733**
Status : **Not Answered**
Chosen Option : **--**

Q.49 A synchronous condenser is an _____.

Ans

✗ A. under excited synchronous motor running at no load

✗ B. under excited synchronous motor running at full load

✗ C. over excited synchronous motor running at full load

✓ D. over excited synchronous motor running at no load

Question ID : **63068056360**
Status : **Answered**
Chosen Option : **D**

Q.50 Which of the following options is equal to the cross product of A × B?

Ans

✓ A. -B × A

✗ B. -B × -A

✗ C. B × A

✗ D. -(B × A)

Question ID : **63068061774**
Status : **Answered**
Chosen Option : **D**

Q.51 Increasing the mechanical input power to prime mover will _____the speed but will _____the power angle.

Ans

✗ A. not affect; decrease

✓ B. not affect; increase

✗ C. decrease; increase

✗ D. increase; decrease

Question ID : **63068056388**
Status : **Answered**
Chosen Option : **B**

Q.52 **Points P and Q are located at (2, 0, 4) and (6, −2, 5) respectively. Calculate the distance vector from P to Q.**

Ans

✗ A. $4a_x - 2a_y + 5a_z$

✗ B. $8a_x + 2a_y + 9a_z$

✓ C. $4a_x - 2a_y + a_z$

✗ D. $6a_x - 2a_y + a_z$

Question ID : **63068061780**
Status : **Answered**
Chosen Option : **C**

Q.53 **Which of the following is true in case of Moore Machine ?**

Ans

✗ A. The output changes at the instance when input changes

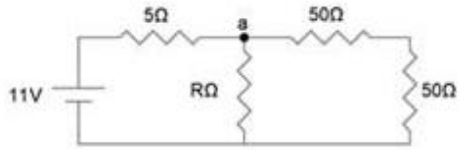
✓ B. The output is likely to change with clock transition

✗ C. There is no need of output combinational circuit

✗ D. The inputs have no effect on output

Question ID : **63068065074**
Status : **Answered**
Chosen Option : **B**

Q.54 What will be the value of 'R' to have potential at 'a' equal to 10V?



Ans

✗ A. 10Ω

✓ B. 100Ω

✗ C. 50Ω

✗ D. 5Ω

Question ID : **63068063712**
Status : **Answered**
Chosen Option : **B**

Q.55 Which of the following has the unit of coulomb per cubic metre?

Ans

✗ A. Surface charge density

✗ B. Point charge density

✗ C. Line charge density

✓ D. Volume charge density

Question ID : **63068061803**
Status : **Answered**
Chosen Option : **D**

Q.56 **In a hydroelectric power plant, which of the following is used to discharge surplus water on the downstream side of dam?**

Ans

✗ A. Surge tank

✗ B. Condenser

✗ C. Penstock

✓ D. Spillways

Question ID : **63068053528**
Status : **Answered**
Chosen Option : **A**

Q.57 Consider a signal $x[n] = 2^n u[n]$ having Z Transform as X (z) with ROC R. The Inverse Z Transform for X(2z) will be:

Ans

✓ A. u[n]

✗ B. 2^n u[n]

✗ C. 4^u u[n]

✗ D. 2^{2n} u[n]

Question ID : **63068063108**
Status : **Answered**
Chosen Option : **A**

Q.58 **Consider the open loop system which has G(S) = 10/S. The output y(t) for the unit step input u(t) is equal to:**

Ans

✗ A. 10 u(t)

✗ B. u(t)

✗ C. 10 t^2 u(t)

✓ D. 10 t u(t)

Question ID : **63068063577**
Status : **Answered**
Chosen Option : **D**

Q.59 Find the distance between the two points (4, −4) and (7, 3).

Ans

✗ A. $7\sqrt{5}$

✗ B. $\sqrt{18}$

✓ C. $\sqrt{58}$

✗ D. $\sqrt{106}$

Question ID : **63068061864**
Status : **Answered**
Chosen Option : **C**

Q.60 Which of the following is FALSE for a CMOS Transmission Gate ?

Ans

✗ A. It has one NMOS and one PMOS connected in Parallel

✗ B. Control Input is connected to gate of NMOS and complement of the control input to gate of PMOS

✓ C. It has one NMOS and one PMOS connected in Series

✗ D. It works as a controlled electronic switch

Question ID : **63068065073**
Status : **Answered**
Chosen Option : **B**

Q.61 Which type of meters work as integrating instruments?

Ans

✗ A. Ammeters

✗ B. Ohmmeters

✗ C. Wattmeters

✓ D. Watt-hour meters

Question ID : **63068061728**
Status : **Answered**
Chosen Option : **D**

Q.62 Pulse gating is NOT suitable for _____.

Ans

✗ A. RLC loads

✗ B. R loads

✗ C. L loads

✓ D. RL loads

Question ID : **63068054373**
Status : **Answered**
Chosen Option : **C**

Q.63 Which of the following is true in case of Microprogrammed control unit?

Ans

✓ A. It is a unit which generates control signals with microinstructions in the control memory

✗ B. It is a combinational circuit that generates control signals

✗ C. It is a circuit in which modification in instruction set is not possible

✗ D. It is a sequential circuit that generates control signals

Question ID : **63068065098**
Status : **Answered**
Chosen Option : **A**

Q.64 Two wire systems have the voltage at the supply end maintained at 500 V. The line is 4 km long. If the full-load current is 15 A, what must be the booster voltage and output in order that the far end voltage may also be 500 V. The resistance of the cable is 0.5 ohm/km.

Ans

✗ A. 400W

✓ B. 450W

✗ C. 478.5W

✗ D. 550W

Question ID : **63068066265**
Status : **Answered**
Chosen Option : **B**

Q.65 A linear time invariant (LTI) system is said to be stable if _____.

Ans

✗ A. its natural response neither decays nor grows but remains constant or oscillates

✓ B. its natural response approaches zero as time approaches infinity

✗ C. its natural response approaches infinity as time approaches infinity

✗ D. any bounded input yields an unbounded output

Question ID : **63068065431**
Status : **Answered**
Chosen Option : **B**

Q.66 In a sequence detector to detect '1010' (Moore type), which of the following is true?

Ans

✗ A. This cannot be an overlapping sequence

✓ B. The number of states for overlapping sequence and non-overlapping sequence are same

✗ C. The number of states for overlapping sequence and non-overlapping sequence are different

✗ D. Number of states in the machine are 4

Question ID : **63068065049**
Status : **Answered**
Chosen Option : **C**

Q.67 The simplified form of Boolean expression xy'z + x'y'z + xy'z' is:

Ans

✗ A. y'z' + xy'

✗ B. 0

✗ C. 1

✓ D. y'z + y'x

Question ID : **63068063742**
Status : **Answered**
Chosen Option : **D**

Q.68 If U is a unitary matrix of order 3, what is the value of |det(U)|?

Ans
- ✔ A. 1
- ✘ B. Depends on the matrix U
- ✘ C. 3
- ✘ D. 0

Question ID : **63068065553**
Status : **Answered**
Chosen Option : **A**

Q.69 Which of the following statements is true for integral cycle control with full supply voltage?

Ans
- ✘ A. Power flows from source to load and vice versa.
- ✘ B. Load must have unity power factor.
- ✔ C. 2 thyristors are always connected back to back.
- ✘ D. Only unidirectional switch can be used.

Question ID : **63068064379**
Status : **Answered**
Chosen Option : **D**

Q.70 Which of the following is NOT a factor affecting measurement accuracy of a Q-meter?

Ans
- ✔ A. Conductance of the coil
- ✘ B. Residual inductance of the instrument
- ✘ C. Conductance of voltmeter
- ✘ D. Shunt resistor of meter

Question ID : **63068066284**
Status : **Not Answered**
Chosen Option : **--**

Q.71 Cycloconverters used in AC motor speed control provide _____ frequency power from a _____ input frequency power.

Ans

✗ A. variable; variable

✗ B. fixed; variable

✓ C. variable; fixed

✗ D. fixed; fixed

Question ID : **63068054362**
Status : **Answered**
Chosen Option : **C**

Q.72 An underground cable of length 100 metres has an insulation of relative permittivity 4. If the conductor diameter and inner sheath diameter of the cable is 3 cm and 9.5cm, respectively, then find the capacitance of the cable.

Ans

✗ A. $\frac{4}{41.4\log_{10} 3.167} \times 10^{-9}\text{F}$

✗ B. $\frac{200}{41.4\log_{10} 3.167} \times 10^{-9}\text{F}$

✓ C. $\frac{400}{41.4\log_{10} 3.167} \times 10^{-9}\text{F}$

✗ D. $\frac{100}{41.4\log_{10} 3.167} \times 10^{-9}\text{F}$

Question ID : **63068053484**
Status : **Answered**
Chosen Option : **C**

Q.73 **For a solid round conductor, the self-geometrical mean distance can be expressed as _____.**
[r = radius of the conductor].

Ans

✗ A. 0.834 r

✓ B. 0.778 r

✗ C. 0.675 r

✗ D. 0.545 r

Question ID : **63068053492**
Status : **Answered**
Chosen Option : **B**

Q.74 Consider a discrete time signal $x1[n] = a^n u[n]$. Identify which of the following is a correct statement.

Ans

✗ A. It is low frequency signal for -1 < a <0

✗ B. It is a high frequency signal for 0 < a < 1

✗ C. For a = 0, it will represent band pass signal

✓ D. Frequency domain representation does not exist for |a|>1

Question ID : **63068063119**
Status : **Answered**
Chosen Option : **C**

Q.75 **Total transmission loss in a plant can be expressed as:**
[Given, loss coefficient = B_{mn}, plant powers = Pn and Pm]

Ans

✗ A. $\sum_{m=1}^{N}\sum_{n=1}^{N} P_m P_n$

✗ B. $\sum_{m=1}^{N}\sum_{n=1}^{N} P_m B_{mn}$

✗ C. $\sum_{m=1}^{N}\sum_{n=1}^{N} P_m P_n B_{mm}$

✓ D. $\sum_{m=1}^{N}\sum_{n=1}^{N} P_m P_n B_{mn}$

Question ID : **63068066262**
Status : **Answered**
Chosen Option : **D**

Q.76 **Which of the following are temporary registers in 8085?**

Ans

✗ A. H and L

✓ B. W and Z

✗ C. Flags

✗ D. SP and PC

Question ID : **63068065063**
Status : **Answered**
Chosen Option : **B**

Q.77 **In single-phase to single-phase step up midpoint type cycloconverter, the frequency of the output voltage is _____than that of the supply frequency.**

Ans

✔ A. greater

✘ B. lesser than or equal to

✘ C. lesser

✘ D. equal

Question ID : **63068054364**
Status : **Answered**
Chosen Option : **A**

Q.78 If x increases at the rate of 0.5 cm/sec at the instant when x=1 cm and y=2cm, at what rate must y be changing in order that the function $2xy - 3x^2y$ is neither increasing nor decreasing?

Ans

✘ A. 4 cm/sec

✔ B. – 4 cm/sec

✘ C. 2 cm/sec

✘ D. – 2 cm/sec

Question ID : **63068064901**
Status : **Not Answered**
Chosen Option : **--**

Q.79 The value of $\iint_R x^2 dxdy$ over the region bounded by xy = b, y = 0, x = a, x = b is:

Ans

✔ A. $\frac{b}{2}(b^2 - a^2)$

✘ B. $\frac{b(b-a)}{a}$

✘ C. $\frac{b}{2}(a^2 - b^2)$

✘ D. $b(b - a)$

Question ID : **63068065537**
Status : **Answered**
Chosen Option : **A**

Q.80 If $|A| = \begin{vmatrix} a & b & c \\ d & e & f \\ g & h & i \end{vmatrix} = 5$, then $|B| = \begin{vmatrix} -d & -e & -f \\ a & b & c \\ g & h & i \end{vmatrix} = ?$

Ans

✘ A. −5

✘ B. −125

✘ C. 125

✔ D. 5

Question ID : **63068065503**
Status : **Answered**
Chosen Option : **D**

Q.81 The steady state error for the type 0 unity feedback stable control system for unit step signal is equal to:

Ans

✗ A. $\frac{1}{Kp}$

✗ B. infinite

✓ C. $\frac{1}{1+Kp}$

✗ D. 0

Question ID : **63068063533**
Status : **Answered**
Chosen Option : **C**

Q.82 A half wave rectifier uses a diode with Rf = 100Ω and R_L = 1kΩ. If RMS secondary voltage is 50V,then calculate P_{dc}.

Ans

✗ A. 0.265 W

✗ B. 0.63 W

✓ C. 0.4189 W

✗ D. 0.138 W

Question ID : **63068065477**
Status : **Not Answered**
Chosen Option : **--**

Q.83 Which of the following types of systems is represented by the point coordinates in the form of (5, 30°, 2)?

Ans

✗ A. Cuboid coordinates system

✗ B. Spherical coordinates system

✗ C. Cartesian coordinates system

✓ D. Cylindrical coordinates system

Question ID : **63068061783**
Status : **Answered**
Chosen Option : **D**

Q.84 The two-six pulse converters are connected in series on the DC side to meet _____requirements in HVDC systems.

Ans

✗ A. high efficiency

✗ B. high power

✗ C. high current

✓ D. high voltage

Question ID : **63068054408**
Status : **Answered**
Chosen Option : **A**

Q.85 If the 5-bit ripple counter and 5-bit synchronous counter are having flip-flops with propagation delay of 20 ns, the maximum delay in the ripple counter (x) and synchronous counter (y) will be:

Ans

✗ A. x = 20 ns, y = 90 ns

✗ B. x = 20 ns, y = 100 ns

✗ C. x = 90 ns, y = 20 ns

✓ D. x = 100 ns, y = 20 ns

Question ID : **63068063746**
Status : **Answered**
Chosen Option : **D**

Q.86 What will be the minimum frequency of output voltage harmonic in a single phase fully controlled bridge converter?

Ans

✓ A. Twice the input supply frequency

✗ B. Zero

✗ C. Same as input supply frequency

✗ D. Four times the input supply frequency

Question ID : **63068064381**
Status : **Answered**
Chosen Option : **C**

Q.87 **Which of the following options represents symmetrical fault?**

Ans

✔ A. 3-phase short circuit fault

✘ B. Line to line fault

✘ C. Phase to phase fault

✘ D. Single line to ground fault

Question ID : **63068053501**
Status : **Answered**
Chosen Option : **A**

Q.88 If the life of mobile batteries is exponentially distributed with parameter $\lambda = 0.002$ days, the probability that a battery will last more than 1500 days is:

Ans

✘ A. $1/e^2$

✘ B. $1/e$

✔ C. $1/e^3$

✘ D. $1/e^4$

Question ID : **63068065276**
Status : **Answered**
Chosen Option : **C**

Q.89 Consider a discrete time system with impulse response $h[n] = \left(\frac{1}{3}\right)^n u[n]$.

The response of system to input $x[n] = (-1)^n$ for all 'n' is

Ans

✗ A. $\frac{1}{4}(-1)^n$

✓ B. $\frac{3}{4}(-1)^n$

✗ C. $\frac{2}{3}(-1)^n$

✗ D. $\frac{1}{3}(-1)^n$

Question ID : **63068063772**
Status : **Not Answered**
Chosen Option : **--**

Q.90 **If the voltage across each disc insulator in a string is equal, then calculate the string efficiency of the string.**

Ans

✓ A. 1

✗ B. 0.75

✗ C. 0.9

✗ D. 0.5

Question ID : **63068053481**
Status : **Answered**
Chosen Option : **A**

Q.91 **Consider the negative feedback control system using amplifiers. If the system has two open loop poles in the left half of S plane, then the system is:**

Ans

✔ A. always stable

✘ B. unstable

✘ C. oscillatory

✘ D. unstable at high frequencies

Question ID : **63068063536**
Status : **Answered**
Chosen Option : **A**

Q.92 Which of the following expressions for the energy stored in a magnetic field in terms of inductance L, reluctance $\Re$ and flux linkage Ψ are correct?

1) $\frac{1}{2} \times L \times i^2$

2) $\frac{1}{2} \times \Re \times \varphi^2$

3) $\frac{1}{2} \times \Re \times MMF^2$

4) $\frac{1}{2} \times \psi \times i$

Ans

✘ A. 1, 3 and 4

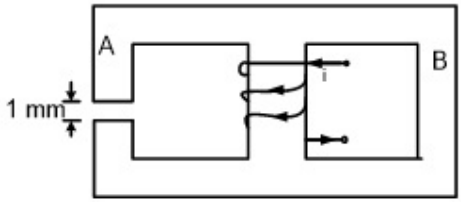
✘ B. 2, 3 and 4

✘ C. 1, 2 and 3

✔ D. 1, 2 and 4

Question ID : **63068061764**
Status : **Answered**
Chosen Option : **D**

Q.93 Which of the following statements is correct for the magnetic circuit shown in the figure?



Ans
- ✗ A. Flux in limb A is zero
- ✗ B. Flux in limb A = Flux in limb B
- ✗ C. Flux in limb A > Flux in limb B
- ✓ D. Flux in limb A < Flux in limb B

Question ID : **63068061730**
Status : **Answered**
Chosen Option : **D**

Q.94 **Which is the correct distance between the two points P (6, 4, −3) and Q (2, −8, 3)?**

Ans
- ✗ A. 9
- ✗ B. 21
- ✗ C. 32
- ✓ D. 14

Question ID : **63068061865**
Status : **Answered**
Chosen Option : **D**

Q.95 If the length of the cross arm is increased, the string efficiency _____.

Ans

✗ A. becomes zero

✓ B. increases

✗ C. remains unaffected

✗ D. decreases

Question ID : **63068053483**
Status : **Answered**
Chosen Option : **B**

Q.96 The full load slip of a synchronous motor is:

Ans

✗ A. 0.05

✗ B. 0.01

✓ C. 0

✗ D. 0.02

Question ID : **63068056344**
Status : **Answered**
Chosen Option : **C**

Q.97 The single-phase sinusoidal voltage controller has _____primary winding and _____secondary winding.

Ans

✓ A. 1; (n+1)

✗ B. n; (n+1)

✗ C. 2; 3

✗ D. (n+1); n

Question ID : **63068054375**
Status : **Answered**
Chosen Option : **A**

Q.98 **The impedance of a synchronous motor during the slip test is:**

Ans

✗ A. very high

✗ B. zero

✗ C. high

✓ D. low

Question ID : **63068056356**
Status : **Answered**
Chosen Option : **C**

Q.99 Match the columns.

Types of DVM	**Sub-component in ADC**
(A)Successive approximation type	(1) Digital-to-analog converter
(B) Servo type	(2) Voltage to time converter
(C) Dual slope type	(3) Pulse generator
(D) Ramp type	(4) Potentiometer
	(5) Capacitor

Ans

✗ A. A–5, B–3, C–1, D–4

✓ B. A–1, B–4, C–5, D–2

✗ C. A–1, B–3, C–5, D–4

✗ D. A–5, B–4, C–1, D–2

Question ID : **63068066279**
Status : **Answered**
Chosen Option : **C**

Q.100 The loop transfer function of a system is given by $G(s)H(s) = \frac{10e^{-Ls}}{s}$. The phase crossover frequency is $\frac{5r}{s}$. The value of the dead time L is_____.

Ans

✔ A. $\frac{\pi}{10}$

✘ B. $\frac{\pi}{20}$

✘ C. Zero

✘ D. $\frac{-\pi}{20}$

Question ID : **63068054505**
Status : **Answered**
Chosen Option : **A**

Q.101 If the eigen values of the matrix $\begin{pmatrix} x & 1 \\ 1 & y \end{pmatrix}$ are in the ratio 3:1 when y=2, then x= ?

Ans

✔ A. $2, \frac{14}{3}$

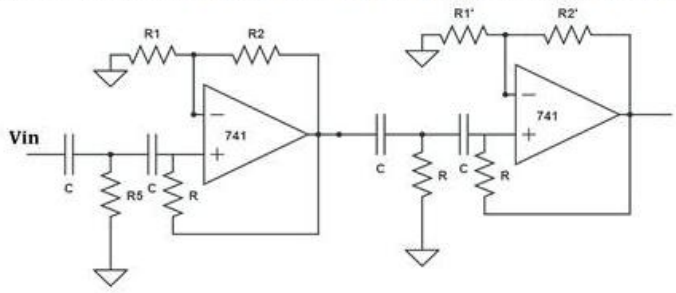
✘ B. $\frac{1}{2}, \frac{1}{6}$

✘ C. 14, 6

✘ D. 6, 2

Question ID : **63068065516**
Status : **Answered**
Chosen Option : **A**

Q.102 The circuit shown in the given figure is an active filter of _____ order _____.



Ans

✔ A. 4th, high-pass filter

✘ B. 4th, low-pass filter

✘ C. 2nd, high-pass filter

✘ D. 2nd, low-pass filter

Question ID : **63068064298**
Status : **Answered**
Chosen Option : **A**

Q.103 Which of the following is true for Pipelined Architecture?

Ans

✘ A. Instructions dependent on results of previous instructions can also be executed without any delay

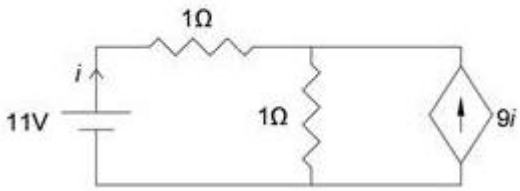
✘ B. Instruction fetching, decoding and execution are sequential processes

✘ C. Pipelined architecture fails in case of branch type of Instructions

✔ D. Instruction fetching, decoding and execution processes can work simultaneously for different instructions

Question ID : **63068065092**
Status : **Answered**
Chosen Option : **D**

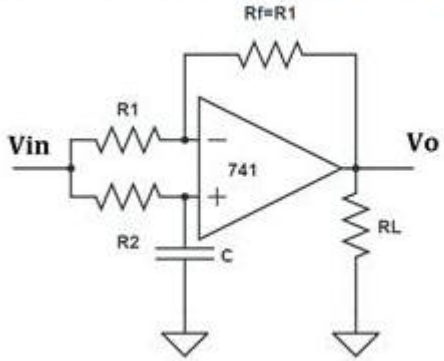
Q.104 What is the value of 'i' in the given circuit?



Ans
- ✗ A. 2A
- ✗ B. 0.4A
- ✓ C. 1A
- ✗ D. 0.1A

Question ID : **63068063713**
Status : **Answered**
Chosen Option : **C**

Q.105 The circuit shown in the given figure is:



Ans
- ✗ A. a low-pass filter
- ✗ B. a high-pass filter
- ✗ C. a band-pass filter
- ✓ D. an all-pass filter

Question ID : **63068064297**
Status : **Answered**
Chosen Option : **D**

Q.106 **Consider the characteristics equation of the control system given by $S^3 - 5S^2 - 3S+2=0$. The number of roots in the right half of S plane is equal to:**

Ans
- ✗ A. 1
- ✗ B. 0
- ✓ C. 2
- ✗ D. 3

Question ID : **63068063563**
Status : **Answered**
Chosen Option : **C**

Q.107 If a continuous random variable X has the distribution function $F(x) = \begin{cases} 0 \; if \; x \leq 1 \\ C(x+1)^2 \; if \; 1 < x \leq 2 \\ 2 \; if \; x > 2 \end{cases}$ then the probability density function is:

Ans

✗ A. $f(x) = \begin{cases} 1 \; is \; x \leq 1 \\ 2C(x+1) \; if \; 1 < x \leq 2 \\ 0 \; if \; x > 2 \end{cases}$

✓ B. $f(x) = \begin{cases} 0 \; is \; x \leq 1 \\ 2C(x+1) \; if \; 1 < x \leq 2 \\ 0 \; if \; x > 2 \end{cases}$

✗ C. $f(x) = \begin{cases} 0 \; is \; x \leq 1 \\ C(x+1) \; if \; 1 < x \leq 2 \\ 1 \; if \; x > 2 \end{cases}$

✗ D. $f(x) = \begin{cases} 0 \; is \; x \leq 1 \\ C(x+1) \; if \; 1 < x \leq 2 \\ 0 \; if \; x > 2 \end{cases}$

Question ID : **63068065288**
Status : **Answered**
Chosen Option : **B**

Q.108 A voltage having symmetrical square wave shape is applied to an average reading voltmeter .Its scale is calibrated in terms of rms value of a sinusoidal wave. The meter has an error of

Ans

✗ A. –9%

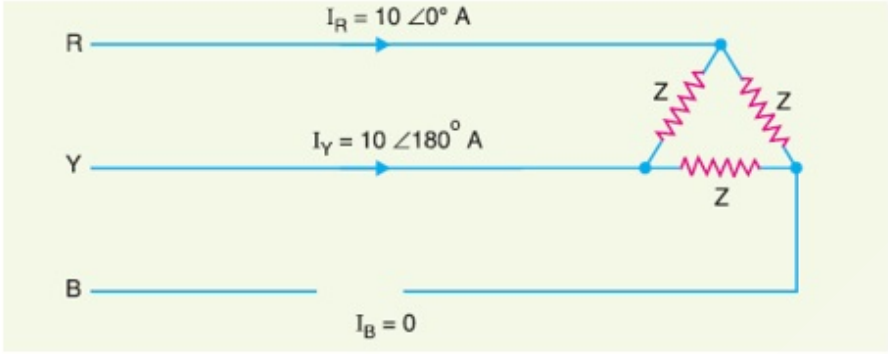
✗ B. 0.09

✗ C. –11%

✓ D. 0.11

Question ID : **63068066286**
Status : **Answered**
Chosen Option : **D**

Q.109



Find the zero-sequence current of the given network.

Ans

✗ A. 10 A

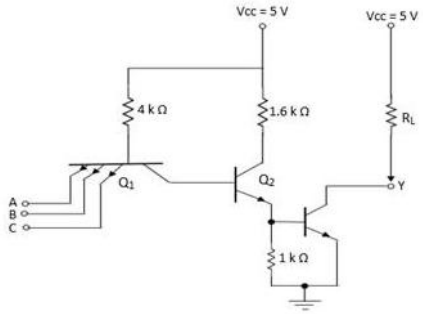
✗ B. 5 A

✗ C. 3.33 A

✓ D. 0 A

Question ID : **63068053495**
Status : **Answered**
Chosen Option : **D**

Q.110 In the following open collector TTL gate, if all inputs are HIGH, what will be the voltage of output Y?



Ans

✗ A. 2.4 V

✓ B. 0.2 V

✗ C. 0.4 V

✗ D. 0.8 V

Question ID : **63068065043**
Status : **Not Answered**
Chosen Option : **--**

Q.111 Which of the following is a correct property of vector product?

Ans

✗ A. The vector product has commutative property.

✓ B. (ka) × b = k(a × b) = a × (kb).

✗ C. If the given vectors are collinear, then a × b = 1.

✗ D. a × b = b × a.

Question ID : **63068061851**
Status : **Answered**
Chosen Option : **B**

Q.112 Consider the log magnitude versus w plot and phase angle versus w plot. The phase margin is defined as:

Ans

✔ A.

$PM = 180^{o} + < G(jw)\ H(jw)$ at $w=w_{gc}$ where w_{gc} is gain cross over frequency

✘ B.

$PM = < G(jw)\ H(jw)$ at $w=w_{gc}$ where w_{gc} is gain cross over frequency

✘ C.

$PM = 180^{o} + < G(jw)\ H(jw)$ at $w=w_{pc}$ where w_{pc} is phase cross over frequency

✘ D.

$PM = 180^{o} - < G(jw)\ H(jw)$ at $w=w_{gc}$ where w_{gc} is gain cross over frequency

Question ID : **63068063555**
Status : **Answered**
Chosen Option : **A**

Q.113 In a 3-core belted cable, the measured capacitance between a conductor and the other two connected to the sheath together is 9 μF, whereas the measured capacitance between the three cores bunched together and the sheath is 12 μF. Calculate the capacitance per phase.

Ans

✔ A. 11.5 μF

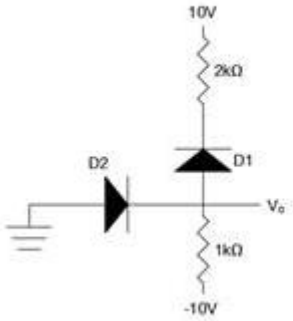
✘ B. 2.5 μF

✘ C. 4μF

✘ D. 7.5 μF

Question ID : **63068066255**
Status : **Answered**
Chosen Option : **A**

Q.114 Find V_o for the circuit shown below, when the diodes are ideal.



Ans
- ✗ A. 3V
- ✗ B. 1V
- ✗ C. 2V
- ✓ D. 0V

Question ID : **63068064033**
Status : **Answered**
Chosen Option : **D**

Q.115 Which of the following is true in case of Mealy machine?

Ans
- ✗ A. Output is same as State
- ✓ B. Output is function of Inputs and States
- ✗ C. Output is function of Inputs
- ✗ D. Output is function of States

Question ID : **63068065050**
Status : **Answered**
Chosen Option : **B**

Q.116 Which of the following flags is used in instruction SBB C in 8085?

Ans

✔ A. Carry Flag

✘ B. Sign Flag

✘ C. Zero Fag

✘ D. Auxiliary Carry Flag

Question ID : **63068065066**
Status : **Answered**
Chosen Option : **A**

Q.117 Conversion of $(98.75)_{10}$ into binary, octal and hexadecimal number system, respectively, is:

Ans

✘ A. $(1100010.11)_2$, $(242.6)_8$ and $(62.C)_{16}$

✘ B. $(0100011.11)_2$, $(142.6)_8$ and $(62.C)_{16}$

✘ C. $(0100011.11)_2$, $(242.6)_8$ and $(62.12)_{16}$

✔ D. $(1100010.11)_2$, $(142.6)_8$ and $(62.C)_{16}$

Question ID : **63068063428**
Status : **Answered**
Chosen Option : **D**

Q.118 Which of the following is an advantage of Multiple bus organisations over Single bus?

Ans

✘ A. Instruction fetch is faster

✔ B. Reduction in the number of cycles for execution.

✘ C. Instruction decoding is faster

✘ D. Data path becomes complex

Question ID : **63068065096**
Status : **Answered**
Chosen Option : **B**

Q.119 The volume of the solid bounded by the planes x = 0, y = 0, x + y + z = a and z = 0 is:

Ans

✗ A. $\frac{a}{3}$ *cubic units*

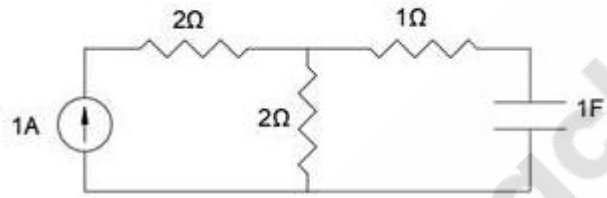
✗ B. $\frac{a}{6}$ *cubic units*

✓ C. $\frac{a^3}{6}$ *cubic units*

✗ D. $\frac{a^3}{3}$ *cubic units*

Question ID : **63068064917**
Status : **Answered**
Chosen Option : **D**

Q.120 Find the time constant for the given network.



Ans

✗ A. 5 sec

✓ B. 3 sec

✗ C. 1 sec

✗ D. 7 sec

Question ID : **63068063725**
Status : **Answered**
Chosen Option : **B**

Q.121 Find the most economical working size of an underground cable working on a 33-kV single-phase system. Given the maximum allowable dielectric stress is 11 kV/cm.

Ans

✗ A. 1.5 cm

✓ B. 6 cm

✗ C. 3 cm

✗ D. 9 cm

Question ID : **63068053486**
Status : **Not Answered**
Chosen Option : **--**

Q.122 Which of the following shows the applications of the dot product?

Ans

✓ A. Projection of one vector on another

✗ B. Area of triangle

✗ C. Unit vector perpendicular to two vectors

✗ D. Co-linearity of two vectors

Question ID : **63068061791**
Status : **Answered**
Chosen Option : **A**

Q.123 In a parallel resonance circuit, the admittance is:

Ans

✗ A. zero

✗ B. Maximum

✓ C. minimum

✗ D. infinity

Question ID : **63068064288**
Status : **Answered**
Chosen Option : **C**

Q.124 Which of the following scalar triple products is cyclic in nature of vector a, b and c?

Ans

✗ A. [c a b] = – [b a c] = – [a b c]

✓ B. [c a b] = – [b a c] = – [c b a]

✗ C. [c a b] = – [b a c] = [c b a]

✗ D. [c a b] = [b a c] = – [c b a]

Question ID : **63068061792**
Status : **Answered**
Chosen Option : **B**

Q.125 Consider the second order closed loop control system. If the characteristics polynomial is given by $S^2 + 3S + 2 = 0$, then the control system is:

Ans

✗ A. critically damped

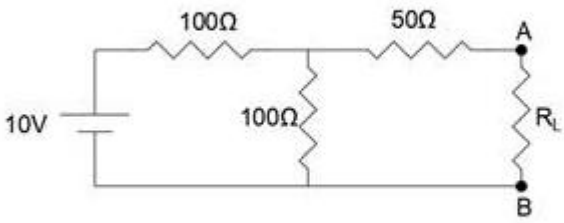
✗ B. underdamped

✗ C. undamped

✓ D. overdamped

Question ID : **63068063537**
Status : **Answered**
Chosen Option : **D**

Q.126 Consider the given circuit.



what is the threshold voltage Vth for the load RL?

Ans
✔ A. 5V
✘ B. 10V
✘ C. 20V
✘ D. 15V

Question ID : **63068063717**
Status : **Answered**
Chosen Option : **A**

Q.127 Which statement is true for Mealy type Sequence Detector?

Ans
✘ A. Nothing can be said in general about number of states in sequence detector without knowing the sequence
✘ B. Mealy type sequence detector will have states one more than number of bits in sequence
✔ C. Mealy type sequence detector will have states same as number of bits in sequence
✘ D. Mealy type sequence detector will have states less than number of bits in sequence

Question ID : **63068065078**
Status : **Answered**
Chosen Option : **B**

Q.128 Consider the signal as given.
x(t)= 10 sin(2pi100t) for 0<t<1 and zero elsewhere,where t is in seconds.

The energy of this signal is:

Ans

✗ A. is infinite

✗ B. 100

✗ C. 25

✓ D. 50

Question ID : **63068063773**
Status : **Answered**
Chosen Option : **D**

Q.129 If $u = \log xy$ where $x^2 + y^2 = 1$ then $\frac{du}{dx} = ?$

Ans

✓ A. $\frac{1}{x} - \frac{x}{y^2}$

✗ B. $\frac{1}{x}$

✗ C. $\frac{1}{x} - \frac{x}{y}$

✗ D. $\frac{1}{x} + \frac{1}{y}$

Question ID : **63068065530**
Status : **Answered**
Chosen Option : **A**

Q.130 The value of the integral $\int_{-\infty}^{\infty} \frac{x^2-x+2}{x^4+10x^2+9} dx$ is:

Ans

✗ A. $\frac{\pi}{6}$

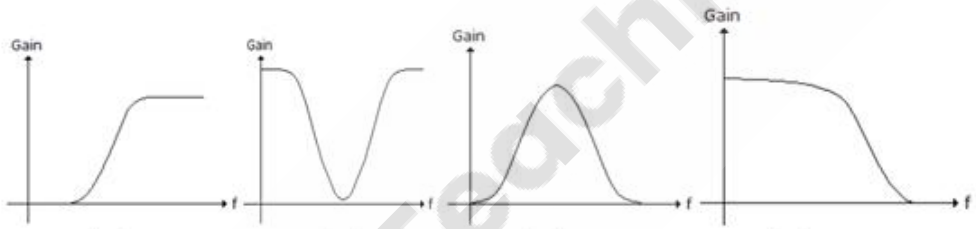
✓ B. $\frac{5\pi}{12}$

✗ C. $\frac{-5\pi}{12}$

✗ D. $\frac{5+3i}{12}$

Question ID : **63068064951**
Status : **Not Answered**
Chosen Option : **--**

Q.131 The frequency response curve for LPF is given by:



(A) (B) (C) (D)

Ans

✗ A. b

✗ B. a

✗ C. c

✓ D. d

Question ID : **63068064296**
Status : **Answered**
Chosen Option : **D**

Q.132 A bridge rectifier is an alternative for:

Ans

✗ A. a peak rectifier

✗ B. a half wave rectifier

✓ C. a full wave rectifier

✗ D. Both half- and full-wave rectifier

Question ID : **63068064024**
Status : **Answered**
Chosen Option : **D**

Q.133 The nature of under excited synchronous motor is:

Ans

✗ A. conductive

✓ B. inductive

✗ C. resistive

✗ D. capacitive

Question ID : **63068056345**
Status : **Answered**
Chosen Option : **B**

Q.134 In static AC circuit breakers, the circuit breaks have a maximum time delay of _____.

Ans

✗ A. $\frac{2\pi}{3\omega}\text{sec}$

✗ B. $\frac{\pi}{2}\text{sec}$

✓ C. $\frac{\pi}{\omega}\text{sec}$

✗ D. $\frac{2\pi}{\omega}\text{sec}$

Question ID : **63068066251**
Status : **Answered**
Chosen Option : **C**

Q.135 If the two roots of a characteristic equation for a 3 × 3 matrix A is 2 + 3i and 2, then the determinant of A is:

Ans

✗ A. -10

✗ B. $\sqrt{13}$

✗ C. $2\sqrt{13}$

✓ D. 26

Question ID : **63068065514**
Status : **Answered**
Chosen Option : **D**

Q.136 Synchronous condenser works as:

Ans

✗ A. over excited synchronous generator

✗ B. under excited synchronous generator

✗ C. under excited synchronous motor

✓ D. over excited synchronous motor

Question ID : **63068053529**
Status : **Answered**
Chosen Option : **D**

Q.137 Match the following for ABCD parameters.

1) A	a) Admittance
2) B	b) Current ratio
3) C	c) Impedance
4) D	d) Voltage ratio

Ans

✗ A. 1-a, 2-b, 3-d, 4-c

✓ B. 1-d, 2-c, 3-a, 4-b

✗ C. 1-b, 2-a, 3-c, 4-d

✗ D. 1-c, 2-d, 3-b, 4-a

Question ID : **63068064282**
Status : **Answered**
Chosen Option : **B**

Q.138 Which of the following is the associative law of algebra for vector quantity?

Ans

✗ A. $(\alpha + \delta)\bar{A} = \alpha\bar{A} + \delta\bar{A}$

✗ B. $\alpha(\bar{B} + \bar{B}) = \alpha\bar{A} + \alpha\bar{B}$

✓ C. $\bar{A} + (\bar{B} + \bar{C}) = (\bar{A} + \bar{B}) + \bar{C}$

✗ D. $\bar{A} + \bar{B} = \bar{B} + \bar{A}$

Question ID : **63068061773**
Status : **Answered**
Chosen Option : **C**

Q.139 The linear time invariant system is represented by the state space model as

$\frac{dX}{dt} = AX + BU$

$Y = CX + DU$

Consider n= number of state variables, m= number of inputs, p= number of outputs. The observability matrix is given by:

Ans

✓ A. $Q_0 = [C^T : A^T C T : (A^T)^2 C^T \ldots\ldots (A^T)^{n-1} C^T]$

✗ B. $Q_0 = [SI\text{-}A]$

✗ C. $Q0 = [B : AB : A^2B \ldots\ldots A^{n-1}B]$

✗ D. $Q_0 = [C : CA : C^2A \ldots\ldots C^{n-1}A]$

Question ID : **63068063551**
Status : **Answered**
Chosen Option : **A**

Q.140 Identify the correct addressing mode for following instruction in 8085.
ADC M

Ans

✗ A. Immediate Addressing Mode

✗ B. Register addressing Mode

✗ C. Implicit Addressing Mode

✓ D. Indirect Addressing Mode

Question ID : **63068065090**
Status : **Answered**
Chosen Option : **D**

Q.141 The solution of the equation $\frac{\partial u}{\partial t} = \frac{\partial^2 u}{\partial x^2}$ with a boundary condition $u(x,0) = 3\sin n\pi x, u(0,t) = 0, u(l,t) = 0$, where $0 < x < l$ is:

Ans

✗ A. $u(x,t) = 3\sum_{n=1}^{\infty} e^{-\pi^2 t} \sin n\pi x$

✗ B. $u(x,t) = 3\sum_{n=1}^{\infty} e^{-n^2\pi^2} \sin n\pi x$

✗ C. $u(x,t) = \sum_{n=1}^{\infty} e^{-n^2\pi^2 t} \sin n\pi x$

✓ D. $u(x,t) = 3\sum_{n=1}^{\infty} e^{-n^2\pi^2 t} \sin n\pi x$

Question ID : **63068064192**
Status : **Not Answered**
Chosen Option : **--**

Q.142 If power supply is Vcc and Gnd, then which of the following gives a valid CMOS logic level?

Ans

✗ A. V_{Ohmin} = 0.3 X VCC

✗ B. V_{Ohmin} = 0.7 X VCC

✓ C. V_{IHmin} = 0.7 X VCC

✗ D. V_{Ohmin} = VCC

Question ID : **63068065047**
Status : **Not Answered**
Chosen Option : **--**

Q.143 Which of the following statements in the context of stability margins are true?

a. The increase in phase margin indicates an increase in damping factor.
b. A lag compensator tends to decrease the phase margin of the system.
c. A lead compensator tends to increase the phase margin of a system.
d. A lead compensator improves the transient response of the system.

Ans

✗ A. a, b and d are true

✗ B. b, c and d are true

✗ C. a and d are true

✓ D. a, b, c and d are true

Question ID : **63068065467**
Status : **Answered**
Chosen Option : **B**

Q.144 According to the vector form of Coulomb's Law, the force exerted by the two charges on each other is _____ but _____ in direction.

Ans

✓ A. equal, opposite

✗ B. unequal, the same

✗ C. equal, the same

✗ D. unequal, opposite

Question ID : **63068061867**
Status : **Answered**
Chosen Option : **A**

Q.145 The value of the integral $\int_C (z-2)^3 dz$, where C is a circle with $|z-2| = 4$, is:

Ans

✗ A. -64

✗ B. 64i

✓ C. 0

✗ D. -128

Question ID : **63068064944**
Status : **Answered**
Chosen Option : **C**

Q.146 Which condition of fluxes produces highest torque in a single-phase induction energy meter?

Ans

✗ A. Phase angle between two fluxes is 60°

✗ B. Phase angle between two fluxes is 45°

✓ C. Phase angle between two fluxes is 90°

✗ D. Phase angle between two fluxes is 0°

Question ID : **63068061727**
Status : **Answered**
Chosen Option : **C**

Q.147 The region in the z-plane whose image under the transformation $z = \sqrt{w}$ bounded by the lines u=1, u=2, v=1, v = 2 in the w-plane is:

Ans

✗ A. a circle

✗ B. a rectangle

✗ C. a parabola

✓ D. a rectangular hyperbola

Question ID : **63068064954**
Status : **Not Answered**
Chosen Option : **--**

Q.148 According to the power circle, the efficiency of a synchronous motor at maximum power output is:

Ans

✗ A. 0.4

✓ B. 0.5

✗ C. 0.6

✗ D. 0.3

Question ID : **63068056353**
Status : **Answered**
Chosen Option : **C**

Q.149 Coulomb's law is linear, which shows that if any one charge is increased 'n' times, then the force exerted _____.

Ans

✗ A. decreases by '2n' times

✗ B. increases by '2n' times

✓ C. increases by 'n' times

✗ D. decreases by 'n' times

Question ID : **63068061868**
Status : **Answered**
Chosen Option : **C**

Q.150 What is the meaning of Instruction DAD B?

Ans

✗ A. Register A is added with Register B

✗ B. Register pair BC is added with register pair BC

✗ C. Decimal Adjustment of Register B

✓ D. Register pair HL is added with register Pair BC

Question ID : **63068065091**
Status : **Answered**
Chosen Option : **D**

Section : **General Knowledge and Awareness**

Q.1 In which of the following states has the Kathak dance originated?

Ans

✗ A. Odisha

✓ B. Uttar Pradesh

✗ C. Tamil Nadu

✗ D. Kerala

Question ID : **63068057537**
Status : **Answered**
Chosen Option : **A**

Q.2 **Which of these is NOT a part of the new Science and Technology Innovation (STI) Policy of India?**

Ans
- ✔ A. Double the private-sector contribution to GERD every 10 years
- ✘ B. Double the number of full-time equivalent (FTE) researchers
- ✘ C. Double the gross domestic expenditure on R&D (GERD)
- ✘ D. One Nation, One Subscription (for journals and thus assuring free access)

Question ID : **63068053877**
Status : **Not Answered**
Chosen Option : **--**

Q.3 **The Kumaon Himalayas extends between:**

Ans
- ✘ A. Kali and Tista rivers
- ✔ B. Satluj and Kali rivers
- ✘ C. Tista and Brahmaputra rivers
- ✘ D. Indus and Satluj rivers

Question ID : **63068059730**
Status : **Not Answered**
Chosen Option : **--**

Q.4 **_____ of the Constitution of India outlines the separation of legislative powers and responsibilities between the centre and states, classifying competences in three categories**

Ans
- ✘ A. Second Schedule
- ✘ B. Fourth Schedule
- ✘ C. Fifth Schedule
- ✔ D. Seventh Schedule

Question ID : **63068051528**
Status : **Not Answered**
Chosen Option : **--**

Q.5 What is the total number of reserve players in a kabaddi team?

Ans
- ✔ A. Five
- ✘ B. Four
- ✘ C. Two
- ✘ D. Three

Question ID : **63068051085**
Status : **Not Answered**
Chosen Option : **--**

Q.6 Which of the following Vedas comprises magical spells?

Ans
- ✘ A. Rig Veda
- ✘ B. Yajur Veda
- ✔ C. Atharva Veda
- ✘ D. Sama Veda

Question ID : **63068057524**
Status : **Not Answered**
Chosen Option : **--**

Q.7 Majuli, is a river island, located on which of the following rivers?

Ans
- ✔ A. Brahmaputra
- ✘ B. Godavari
- ✘ C. Narmada
- ✘ D. Tapi

Question ID : **63068049554**
Status : **Not Answered**
Chosen Option : **--**

Q.8 **Mother Teresa Memorial award for social justice 2021 for Environment sustainability was awarded to _____ country.**

Ans
- ✗ A. New Zealand
- ✗ B. Germany
- ✓ C. Denmark
- ✗ D. San Marino

Question ID : **63068073294**
Status : **Not Answered**
Chosen Option : **--**

Q.9 **Which of the following scientific principles/laws is related to flight in aeroplanes?**

Ans
- ✗ A. Faraday's laws of electromagnetic induction
- ✗ B. Laws of thermodynamics
- ✗ C. Light amplification by stimulated emission of radiation
- ✓ D. Bernoulli's principle in fluid dynamics

Question ID : **63068061707**
Status : **Answered**
Chosen Option : **D**

Q.10 **The SEBI was established by Government of India on April 12 _____ as a non-statutory body.**

Ans
- ✗ A. 1979
- ✓ B. 1988
- ✗ C. 1980
- ✗ D. 1967

Question ID : **63068073292**
Status : **Answered**
Chosen Option : **A**

Q.11 When did Alauddin Khilji attack Chittorgarh?

Ans

✗ A. 1301

✓ B. 1303

✗ C. 1299

✗ D. 1307

Question ID : **63068053835**
Status : **Not Answered**
Chosen Option : **--**

Q.12 Which of the following was authored by Minhaj-i Siraj Juzjani?

Ans

✗ A. Khazain-ul-Futuh

✗ B. Shahnama

✓ C. Tabaqat-i-Nasiri

✗ D. Kitab-ul-Hind

Question ID : **63068054202**
Status : **Not Answered**
Chosen Option : **--**

Q.13 Into how many groups were the musical instruments being clubbed by Bharat Muni in his Natya Shastra?

Ans

✗ A. Seven

✗ B. Two

✗ C. Three

✓ D. Four

Question ID : **63068050063**
Status : **Not Answered**
Chosen Option : **--**

Q.14 **The term 'King pair' in cricket means:**

Ans

✗ A. an opening pair of bowlers

✓ B. a batsman is dismissed for a duck in both innings

✗ C. an opening pair of batsmen

✗ D. a batsman is scored a hundred in both innings

Question ID : **63068051092**
Status : **Answered**
Chosen Option : **C**

Q.15 **In which year did Albert Einstein formulate the equation $E=mc^2$ which explained that mass and energy are equivalent?**

Ans

✗ A. 1900

✗ B. 1907

✗ C. 1910

✓ D. 1905

Question ID : **63068051547**
Status : **Not Answered**
Chosen Option : **--**

Q.16 **The AIR India International was nationalised in the year:**

Ans

✗ A. 1954

✗ B. 1951

✓ C. 1953

✗ D. 1952

Question ID : **63068059743**
Status : **Not Answered**
Chosen Option : **--**

Q.17 What causes malaria?

Ans

✗ A. Virus

✗ B. Bacteria

✗ C. Fungi

✓ D. Protozoa

Question ID : **63068049640**
Status : **Answered**
Chosen Option : **B**

Q.18 Which Committee is constituted after each general election to Lok Sabha and thereafter from time to time under rule 293?

Ans

✓ A. Committee on Private Members' Bills and Resolutions

✗ B. Committee of Privileges

✗ C. Committee on Petitions

✗ D. Business Advisory Committee

Question ID : **63068051527**
Status : **Not Answered**
Chosen Option : **--**

Q.19 RBI formed a sub-committee to study the issues and concerns in the microfinance sector under the chairmanship of _____.

Ans

✗ A. KC Chakrabarty

✓ B. YH Malegam

✗ C. Shashi Rajagopalan

✗ D. Kumar Mangalam Birla

Question ID : **63068051006**
Status : **Answered**
Chosen Option : **C**

Q.20 **Maulana Abul Kalam Azad Trophy was instituted in:**

Ans

✔ A. 1956-57

✘ B. 1954-55

✘ C. 1952-53

✘ D. 1950-51

Question ID : **63068051050**
Status : **Not Answered**
Chosen Option : **--**

Section : **Reasoning and Aptitude**

Q.1 Which of the following number will replace the question mark and complete the given number series?
168, 178, 190, 206, ?

Ans

✘ A. 220

✘ B. 238

✔ C. 230

✘ D. 236

Question ID : **63068073377**
Status : **Answered**
Chosen Option : **C**

Q.2 Pramod, Dilip, Rohan, Sukumar, Tilak, Vishak, Wasim and Nilam are sitting around a circle facing the centre. Tilak is second to the right of Rohan, who is third to the right of Pramod. Sukumar is second to the left of Pramod and fourth to the right of Dilip. Nilam is third to the right of Vishak, who is not an immediate neighbour of Pramod.
What is Pramod's position with respect to Sukumar?

Ans

✗ A. Fourth to the left

✗ B. Fifth to the left

✗ C. Fourth to the right

✓ D. Sixth to the left

Question ID : **63068073421**
Status : **Answered**
Chosen Option : **D**

Q.3 Five buildings A, B, C, D and E, each has different heights and are situated in a same row of certain condominium. C is only shorter than B. E is shorter than A and D. Which among the following the shortest among all the buildings?

Ans

✓ A. E

✗ B. D

✗ C. C

✗ D. A

Question ID : **63068073405**
Status : **Answered**
Chosen Option : **A**

Q.4 **Two statements I and II have been given. These statements may be independent causes, or effects of independent causes, or effects of a common cause. One of the statements may be the effect of the other statement. Read both the statements and select the correct option.**

A biometric machine that records the employees' 'in' and 'out' time was installed at the office premises of company X.
It was brought to the attention of the management of company X that employees were not clocking in their working hours.

Ans

✗ A. Both I and II are independent causes.

✓ B. II is the cause and I is its effect.

✗ C. Both I and II are effects of some common cause.

✗ D. I is the cause and II is its effect.

Question ID : **63068048621**
Status : **Answered**
Chosen Option : **B**

Q.5 Each of P, Q, R, S, T, U and V works as a field officer and has to travel on a different day of a week starting from Monday and ending on Sunday of the same week.
P has to travel on Tuesday. Only one person has to travel between U and P. T has to travel on the day immediately after U. Only two people have to travel between R and U. V has to travel on the day immediately before S.
On which day does Q has to travel?

Ans

✗ A. Thursday

✗ B. Saturday

✗ C. Friday

✓ D. Wednesday

Question ID : **63068073409**
Status : **Not Answered**
Chosen Option : **--**

Q.6 Which of the following option will replace the question mark (?) in the following letter cluster series?
DC, GA, IY, LW, NU, ?

Ans

✗ A. QR

✗ B. QR

✓ C. QS

✗ D. RS

Question ID : **63068073433**
Status : **Answered**
Chosen Option : **C**

Q.7 **Select the correct answer regarding the following two statements labelled (A) and (B).**
(A): The Government of India is providing free Covid vaccine to all the citizens.
(B): India is the second most populous country in the world.

Ans

✗ A. Statement (A) is the cause and statement (B) is its effect.

✓ B. Both statements (A) and (B) are effects of independent causes.

✗ C. Both statements (A) and (B) are independent causes.

✗ D. Statement (B) is the cause and statement (A) is its effect.

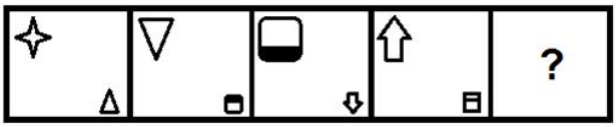
Question ID : **63068050510**
Status : **Answered**
Chosen Option : **B**

Q.8 There are eight women employees namely Akhila, Basanti, Chinmayi, Diya, Mrunali, Frita, Gamati and Hamsika sitting around a circular table facing the centre. Moreover, each of them likes a different sport, viz Polo, Discus throw, Volleyball, Archery, Surfing, Paragliding, Baseball and Aerobics, but not necessarily in the same order.
• Frita, who likes Polo, can't be an immediate neighbour of Chinmayi. Mrunali does not like Surfing.
• Chinmayi sits second to the right of Akhila and Chinmayi likes Aerobics. There are only two persons between Akhila and Diya.
• Mrunali and Gamati are immediate neighbours, while Diya and Frita are also immediate neighbours. Basanti, who likes Volleyball, sits third to the left of Frita.
• Gamati does not like Paragliding or Surfing. Diya sits third to the left of Gamati.
• The person who likes Baseball is sitting between the person who likes Polo and Aerobics. Hamsika likes Archery and is on the immediate right of the person who likes Polo.
If Frita interchanges her position with Chinmayi, then in the new arrangement, how many people are there between Chinmayi and Gamati, when counted in an anticlockwise direction from Chinmayi?

Ans
✗ A. Two
✗ B. Three
✗ C. Four
✓ D. One

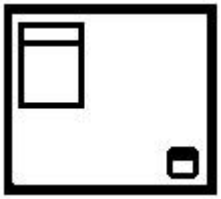
Question ID : **63068058753**
Status : **Not Answered**
Chosen Option : **--**

Q.9 Select the figure from among the given options that can replace the question mark (?) in the following series.

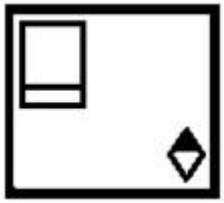


Ans

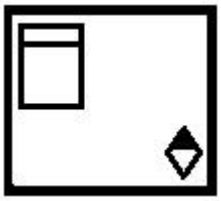
✗ A.



✓ B.



✗ C.



✗ D.

Question ID : **63068073442**
Status : **Answered**
Chosen Option : **B**

Q.10 Choose the odd number.

Ans
✗ A. 64
✗ B. 196
✓ C. 56
✗ D. 144

Question ID : **63068073383**
Status : **Answered**
Chosen Option : **C**

Q.11 **Two statements I and II have been given.. These statements may be independent causes, or effects of independent causes, or effects of a common cause. One of the statements may be the effect of the other statement. Read both the statements and select the correct option.**

Many companies cannot retain their workforce because operations have been affected by the pandemic.
The government has introduced a scheme, wherein they will pay 80% of wages to the companies affected by the pandemic.

Ans
✓ A. I is the cause and II is its effect.
✗ B. Both I and II are independent causes.
✗ C. Both I and II are effects of independent causes.
✗ D. II is the cause and I is its effect.

Question ID : **63068048619**
Status : **Answered**
Chosen Option : **A**

Q.12 What approximate value should come in place of question mark.

$39.989\ \%\ \text{of}\ 900.092 + (6.99 \times 100.01) \div 13.98 + ? = 69.97\ \%\ 7000$

Ans

✔ A. 4490

✘ B. 4940

✘ C. 4904

✘ D. 4094

Question ID : **63068073369**
Status : **Answered**
Chosen Option : **A**

Q.13 If in a certain coding language 'COLORFUL' is written as 'LUFRCOLO', and 'CLINICAL' is written as 'LACICLIN', then how will 'CLOTHING' be written in that coding language?

Ans

✘ A. GNIHTCLO

✘ B. GNIHCHTO

✘ C. GNICLOTH

✔ D. GNIHCLOT

Question ID : **63068073394**
Status : **Answered**
Chosen Option : **D**

Q.14 Select the option that has a different relationship between the numbers of the pair than the rest.

Ans

✘ A. 25 – 49

✔ B. 12 – 38

✘ C. 24 – 36

✘ D. 36 – 81

Question ID : **63068073386**
Status : **Answered**
Chosen Option : **B**

Q.15 **The given situation is followed by two conclusions. Read all the information carefully and decide which of the given conclusions follow(s).**
Situation:
A recent study has revealed that the brains of people who are between the age of 13 and 20 are the most active between 5 p.m. and 3 a.m. However, many students tend to study and concentrate better early in the morning between 5 a.m. and 7 a.m.

Conclusions:
(I): Brain activity is not the only factor that determines the ability to concentrate.
(II): Students who attend evening classes at school always perform better at academics than those who attend day classes.

Ans

✔ A. Only conclusion (I) follows.

✘ B. Both conclusions (I) and (II) follow.

✘ C. Neither conclusion (I) nor (II) follows.

✘ D. Only conclusion (II) follows.

Question ID : **63068048467**
Status : **Answered**
Chosen Option : **A**

Q.16 **Eight members of a colony, Anil, Bipin, Chandan, Dilip, Eshan, Faruq, Govind and Hari, are sitting around a circular table facing the centre. They are in different professions. They are visiting different places viz., Chennai, Guwahati, Jaipur, Madurai, Ahmedabad, Tirupati, Goa, Kerala.**
Anil, who is a doctor by profession, is going to Chennai. Eshan is neither a CA nor a lawyer but is sitting opposite to the CA. Chandan is second to the right of Govind, who is an engineer. Faruq is either a Director or a CA and is going to Madurai. Neither the CA nor the graphic designer is going to Madurai. Hari, a graphic designer, is third to the right of Chandan. Bipin is an artist and is going to Goa. The CA and the Director are sitting adjacent to each other. Faruq, a Director, is sitting second to the left of Bipin and also second to the right of Chandan. The teacher is going to Tirupati. The engineer is going to Guwahati, while the graphic designer is going to Jaipur. Dilip is not going to Ahmedabad.
Who is sitting third to the left of the Director?

Ans

✗ A. Lawyer

✗ B. Engineer

✗ C. CA

✓ D. Doctor

Question ID : **63068057830**
Status : **Not Answered**
Chosen Option : **--**

Q.17 Eight executives, Arun, Bavya, Divya, Eswar, Hina, Kalyan, Lokesh and Mayank are sitting in a conference room around the rectangle table facing the center at an equal distance from each other. Eswar is sitting second to the right of Kalyan. Kalyan is sitting right to Arun, who is to the right of Lokesh. Arun is sitting just opposite to Bavya. Divya is sitting in between Lokesh and Hina. If there are three of them on each side of the long side of the table, and one each on the short side of the table, who is sitting opposite to Mayank?

Ans

✗ A. Hina

✗ B. Arun

✓ C. Divya

✗ D. Lokesh

Question ID : **63068073423**
Status : **Not Answered**
Chosen Option : **--**

Q.18 Ronald walks 10 km towards the north to reach a stadium. Then, he turns to his right and walks 9 km. After this he turns to his left and walks 8km to reach a fitness centre. Again, he turns towards his right and starts walking straight to reach a cafe. In which direction is he walking now?

Ans

✗ A. South

✗ B. West

✗ C. North

✓ D. East

Question ID : **63068073398**
Status : **Answered**
Chosen Option : **D**

Q.19 P % Q' means 'P is the father of Q'.
'P × Q' means 'P is the brother-in-law of Q'.
'P # Q' means 'P is the husband of Q'.
'P $ Q' means 'P is the daughter of Q'.
'P @ Q' means 'P is the brother of Q'.
'P & Q' means 'P is the mother of Q'.

If 'Y # X & A × Z @ C & B', If A is the only child of his parents, then How is A related to B?

Ans

✓ A. Father

✗ B. Brother

✗ C. Cousin

✗ D. Uncle

Question ID : **63068073389**
Status : **Answered**
Chosen Option : **D**

Q.20 Deepak's father has appointed six tution teachers - J, K, L, N, O and P for him for following subjects- Physics, Chemistry, Biology, Maths, English, Computer Sciences but not necessarily in the same order. Each teacher teaches one subject only once in a week and there is only one class per day

O teaches Chemistry on Tuesday.
L teaches Biology on Wednesday.
P teaches Maths but his class is not on Friday.
N has class on immediate day after Biology class.
J is English Teacher.
K teaches computer Science on immediate day after J's class.

Which of the following statements is False?

Ans

✗ A. N teaches Physics

✓ B. Maths class is on Saturday.

✗ C. English class is on Friday

✗ D. The first class of the week is taught by P.

Question ID : **63068073415**
Status : **Answered**
Chosen Option : **B**

Section : **General Hindi**

Q.1 **"दाल न गलना" मुहावरे का सही अर्थ है?**

Ans

✓ A. सफल न होना

✗ B. शासन न चलना

✗ C. दाल खराब होना

✗ D. काम बिगाड़ना

Question ID : **63068073503**
Status : **Answered**
Chosen Option : **A**

Q.2 "दारिद्रय" शब्द का सही विलोम शब्द है?

Ans
✗ A. कौशल
✓ B. वैभव
✗ C. सम्पति
✗ D. यश

Question ID : **63068073500**
Status : **Answered**
Chosen Option : **C**

Q.3 "दाल में ज्यादा नमक पड़ गया है।" वाक्य में कौन - सा विशेषण है?

Ans
✓ A. परिमाणवाचक विशेषण
✗ B. सार्वनामिक विशेषण
✗ C. गुणवाचक विशेषण
✗ D. संख्यावाचक विशेषण

Question ID : **63068073453**
Status : **Answered**
Chosen Option : **A**

Q.4 "राजा भिक्षुक को दान देता है।" वाक्य में कौन सा कारक है?

Ans
✗ A. करण कारक
✓ B. कर्म कारक
✗ C. अपादान कारक
✗ D. सम्प्रदान कारक

Question ID : **63068073490**
Status : **Answered**
Chosen Option : **B**

Q.5 इनमें से 'बादल' का पर्यायवाची कौन-सा शब्द नहीं है?

Ans
✗ A. मेघ
✗ B. वारिद
✗ C. जलद
✓ D. जलधि

Question ID : **63068073454**
Status : **Answered**
Chosen Option : **C**

Q.6 "बाबा जी की दाढ़ी ताबीज में जाना" लोकोक्ति का अर्थ है?

Ans
✗ A. कंगाली में आटा गीला
✗ B. चोर की दाढ़ी में तिनका
✓ C. परोपकारी को हानि हो जाना
✗ D. ताबीज में बाबा की दाढ़ी काम आती है

Question ID : **63068073509**
Status : **Answered**
Chosen Option : **C**

Comprehension:

पुरुषार्थ दार्शनिक विषय है, पर दर्शन का जीवन से घनिष्ठ सम्बन्ध है। वह थोड़े-से विद्यार्थियों का पाठ्य विषय मात्र नहीं है। प्रत्येक समाज को एक दार्शनिक मत स्वीकार करना होता है। उसी के आधार पर उसकी राजनीतिक, सामाजिक और कौटुम्बिक व्यवस्था का व्यूह खड़ा होता है। जो समाज अपने वैयक्तिक और सामूहिक जीवन को केवल प्रतीयमान उपयोगिता के आधार पर चलाना चाहेगा उसको बड़ी कठिनाइयों का सामना करना पड़ेगा। एक विभाग के आदर्श दूसरे विभाग के आदर्श सेट कराएँगे। जो बात एक क्षेत्र में ठीक जंचेगी वहीँ दूसरे क्षेत्र में अनुचित कह लाएगी और मनुष्य के लिए अपना कर्तव्य स्थिर करना कठिन होजाएगा। इस का तमाशा आज दीख पड़ रहा है। चोरी करना बुरा है, पर पराये देश का शोषण करना बुरा नहीं। झूठ बोलना बुरा है, पर राजनैतिक क्षेत्र में सच बोलने पर अड़े रहना मूर्खता है। घर वालों के साथ, देश वासियों के साथ और परदेशियों के साथ बर्ताव करने के लिए अलग-अलग आचार वलियाँ बन गई हैं। इससे विवेकशील मनुष्य को कष्ट होता है।

SubQuestion No : 7

Q.7 बड़ी कठिनाइयों का सामना किसे करना पड़ता है?

Ans

✗ A. विवेक के आधार पर चलने वाला समाज

✗ B. वैयक्तिकता के आधार पर चलने वाला समाज

✗ C. परोपकार के आधार पर चलने वाला समाज

✓ D. जो समाज उपयोगिता के आधार पर चले

Question ID : **63068073511**
Status : **Answered**
Chosen Option : **B**

Comprehension:

पुरुषार्थ दार्शनिक विषय है, पर दर्शन का जीवन से घनिष्ठ सम्बन्ध है। वह थोड़े-से विद्यार्थियों का पाठ्य विषय मात्र नहीं है। प्रत्येक समाज को एक दार्शनिक मत स्वीकार करना होता है। उसी के आधार पर उसकी राजनीतिक, सामाजिक और कौटुम्बिक व्यवस्था का व्यूह खड़ा होता है। जो समाज अपने वैयक्तिक और सामूहिक जीवन को केवल प्रतीयमान उपयोगिता के आधार पर चलाना चाहेगा उसको बड़ी कठिनाइयों का सामना करना पड़ेगा। एक विभाग के आदर्श दूसरे विभाग के आदर्श सेट कराएँगे। जो बात एक क्षेत्र में ठीक जंचेगी वहीँ दूसरे क्षेत्र में अनुचित कह लाएगी और मनुष्य के लिए अपना कर्तव्य स्थिर करना कठिन होजाएगा। इस का तमाशा आज दीख पड़ रहा है। चोरी करना बुरा है, पर पराये देश का शोषण करना बुरा नहीं। झूठ बोलना बुरा है, पर राजनैतिक क्षेत्र में सच बोलने पर अड़े रहना मूर्खता है। घर वालों के साथ, देश वासियों के साथ और परदेशियों के साथ बर्ताव करने के लिए अलग-अलग आचार वलियाँ बन गई हैं। इससे विवेकशील मनुष्य को कष्ट होता है।

SubQuestion No : 8

Q.8 "कौटुम्बिक" का विलोम शब्द है?

Ans

✗ A. समाज

✗ B. स्व

✗ C. परिवार

✓ D. एकल

Question ID : **63068073513**
Status : **Answered**
Chosen Option : **A**

Comprehension:

पुरुषार्थ दार्शनिक विषय है, पर दर्शन का जीवन से घनिष्ठ सम्बन्ध है। वह थोड़े-से विद्यार्थियों का पाठ्य विषय मात्र नहीं है। प्रत्येक समाज को एक दार्शनिक मत स्वीकार करना होता है। उसी के आधार पर उसकी राजनीतिक, सामाजिक और कौटुम्बिक व्यवस्था का व्यूह खड़ा होता है। जो समाज अपने वैयक्तिक और सामूहिक जीवन को केवल प्रतीयमान उपयोगिता के आधार पर चलाना चाहेगा उसको बड़ी कठिनाइयों का सामना करना पड़ेगा। एक विभाग के आदर्श दूसरे विभाग के आदर्श सेट कराएँगे। जो बात एक क्षेत्र में ठीक जंचेगी वहीँ दूसरे क्षेत्र में अनुचित कह लाएगी और मनुष्य के लिए अपना कर्तव्य स्थिर करना कठिन होजाएगा। इस का तमाशा आज दीख पड़ रहा है। चोरी करना बुरा है, पर पराये देश का शोषण करना बुरा नहीं। झूठ बोलना बुरा है, पर राजनैतिक क्षेत्र में सच बोलने पर अड़े रहना मूर्खता है। घर वालों के साथ, देश वासियों के साथ और परदेशियों के साथ बर्ताव करने के लिए अलग-अलग आचार वलियाँ बन गई हैं। इससे विवेकशील मनुष्य को कष्ट होता है।

SubQuestion No : 9

Q.9 गद्यांश का भाव है?

Ans

✗ A. दर्शन और राजनीति

✗ B. कौटुम्बिक व्यवस्था

✓ C. सामाजिक व्यवस्था में दर्शन का महत्त्व

✗ D. सामाजिक व्यवस्था

Question ID : **63068073514**
Status : **Answered**
Chosen Option : **C**

Comprehension:

पुरुषार्थ दार्शनिक विषय है, पर दर्शन का जीवन से घनिष्ठ सम्बन्ध है। वह थोड़े-से विद्यार्थियों का पाठ्य विषय मात्र नहीं है। प्रत्येक समाज को एक दार्शनिक मत स्वीकार करना होता है। उसी के आधार पर उसकी राजनीतिक, सामाजिक और कौटुम्बिक व्यवस्था का व्यूह खड़ा होता है। जो समाज अपने वैयक्तिक और सामूहिक जीवन को केवल प्रतीयमान उपयोगिता के आधार पर चलाना चाहेगा उसको बड़ी कठिनाइयों का सामना करना पड़ेगा। एक विभाग के आदर्श दूसरे विभाग के आदर्श सेट कराएँगे। जो बात एक क्षेत्र में ठीक जंचेगी वहीँ दूसरे क्षेत्र में अनुचित कह लाएगी और मनुष्य के लिए अपना कर्तव्य स्थिर करना कठिन होजाएगा। इस का तमाशा आज दीख पड़ रहा है। चोरी करना बुरा है, पर पराये देश का शोषण करना बुरा नहीं। झूठ बोलना बुरा है, पर राजनैतिक क्षेत्र में सच बोलने पर अड़े रहना मूर्खता है। घर वालों के साथ, देश वासियों के साथ और परदेशियों के साथ बर्ताव करने के लिए अलग-अलग आचार वलियाँ बन गई हैं। इससे विवेकशील मनुष्य को कष्ट होता है।

SubQuestion No : 10

Q.10 समाज के लिए क्या महत्वपूर्ण है?

Ans

✔ A. दर्शन

✘ B. समाजशास्त्र

✘ C. राजनीति

✘ D. पारिवारिक व्यवस्था

Question ID : **63068073512**
Status : **Answered**
Chosen Option : **A**