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(उ०प्र० सरकार का उपक्रम)
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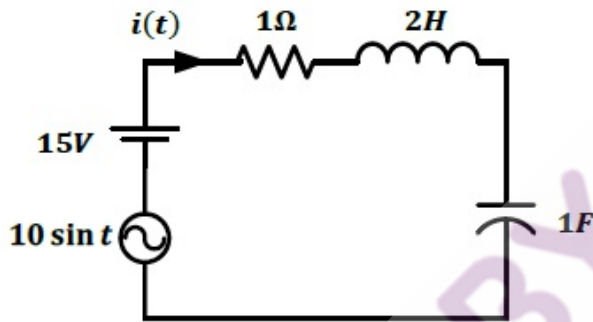
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Application No:
Participant Name:
Test Center Name:
Test Date: 26/07/2015
Test Time: 2:30 PM - 5:30 PM
Subject Name: ASSISTANT ENGINEER ELECTRICAL

Q.1 In the network shown, the value of current $i(t)$ will be

Question ID : 5683

Chosen Option : 1



Ans 1. $7.07 \sin(t - 45^\circ)$

2. 15 A

3. $7.07 \sin t$

4. 0 A

Q.2 The XCHG instruction in 8085 microprocessor after execution changes the data between:

Question ID : 5768

Chosen Option : 2

Ans 1. AB and HL register pair

2. BC and HL register pair

3. DE and HL register pair

4. AB and CD register pair

Q.3 Maxwell's curl equation for electromagnetic field is given by:

Question ID : 5646

Chosen Option : 4

Ans 1. $\nabla \times \vec{B} = \mu_0 [\vec{J} + \epsilon_0 \vec{E}]$

2. $\nabla \times \vec{B} = \mu_0 [\vec{J} + \frac{\partial}{\partial t} \vec{E}]$

3. $\nabla \times \vec{B} = \mu_0 [\vec{J} + \vec{E}]$

✓ 4. $\nabla \times \vec{B} = \mu_0 \left[\vec{J} + \frac{\partial}{\partial t} (\epsilon_0 \vec{E}) \right]$

Q.4 Number of quantization levels required for a PCM system having 5 numbers of bits per sample is:

Question ID : 5747

Chosen Option : 3

- Ans
- ✗ 1. 64
 - ✗ 2. 16
 - ✓ 3. 32
 - ✗ 4. 05

Q.5 The band gap of a semiconductor is 1.43 eV. Its cut-off wave length will be:

Question ID : 5656

Chosen Option : 1

- Ans
- ✓ 1. 0.81 μm
 - ✗ 2. 0.27 μm
 - ✗ 3. 0.56 μm
 - ✗ 4. 1 μm

Q.6 The purpose of connecting snubber circuit across an SCR is to:

Question ID : 5778

Chosen Option : 1

- Ans
- ✓ 1. suppress $\frac{dv}{dt}$.
 - ✗ 2. decrease $\frac{dv}{dt}$.
 - ✗ 3. increase $\frac{dv}{dt}$.
 - ✗ 4. keep transient over voltage at a constant value.

Q.7 Number of 16×1 MUX required to construct 64×1 MUX is:

Question ID : 5743

Chosen Option : 2

- Ans
- ✗ 1. 7
 - ✗ 2. 4
 - ✗ 3. 6
 - ✓ 4. 5

Q.8 The per unit impedance of a circuit element is 0.15. If the base kV and base MVA are both halved, the new value of the per unit impedance will be:

Question ID : 5720

Chosen Option : 3

- Ans
- ✗ 1. 0.075
 - ✗ 2. 0.60
 - ✓ 3. 0.30
 - ✗ 4. 0.15

Q.9 In sinusoidal PWM, there are "m" cycles of the triangular carrier wave in the half cycle of reference sinusoidal signal. If zero of the reference sinusoid coincides with zero/peak of the triangular carrier wave, then the number of pulse generated in each half cycle are respectively:

Question ID : 5785

Chosen Option : 3

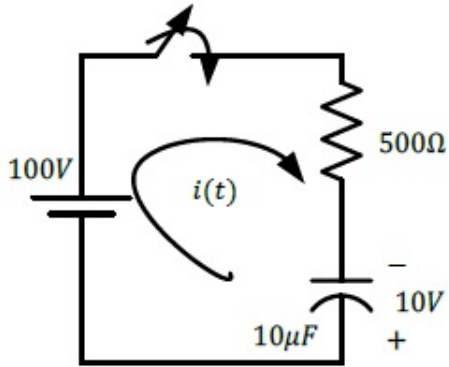
- Ans
- ✗ 1. $\frac{m}{m-1}$

- ~~X~~ 2. $\frac{m}{m+1}$
 ✓ 3. $\frac{m-1}{m}$
~~X~~ 4. $\frac{m-1}{m+1}$

Q.10 In the shown figure, the value of current $i(t)$ will be:

Question ID : 5680

Chosen Option : 3



- Ans ~~X~~ 1. $0.2e^{50t}$
~~X~~ 2. $0.22e^{200t}$
 ✓ 3. $0.22e^{-200t}$
~~X~~ 4. $0.2e^{-50t}$

Q.11 For stability and economic reasons, the transmission lines are operated with power angle in the range of:

Question ID : 5728

Chosen Option : 3

- Ans ~~X~~ 1. 10° to 25°
~~X~~ 2. 65° to 80°
 ✓ 3. 30° to 45°
~~X~~ 4. 60° to 75°

Q.12 A single phase two pulse converter feeds RL load with sufficient smoothing so that the conduction is continuous. If the resistance of the load circuit is increased, then:

Question ID : 5780

Chosen Option : 1

- Ans ~~X~~ 1. the ripple content of the load current will remain the same.
~~X~~ 2. the ripple content of the load current will decrease.
 ✓ 3. the ripple content of the load current will increase.
~~X~~ 4. there is a possibility of discontinuous conduction.

Q.13

Question ID : 5733

Chosen Option : 1

Which of the statements given below is/are correct?

- (a) BJT is a current controlled device with high input impedance and high gain bandwidth.
- (b) UJT is a positive resistance device and used as oscillator.
- (c) FET is a voltage controlled device with high input impedance and low gain bandwidth.
- (d) BJT, FET, UJT can all be used for amplification

Ans 1. Only (c)

2. (b) and (d)

3. (a) and (d)

4. (c) and (a)

Q.14 If the last address of memory size 4K is 3FFF h, then the address of first location would be:

Ans 1. 3000 h

2. 3800 h

3. 3100 h

4. 2 FFF h

Question ID : 5766

Chosen Option : 1

Q.15 If 8085 adds 87 H and 79 H, then:

Ans 1. both CARRY and ZERO flags will be set to 1.

2. CARRY flag will be set to 1, ZERO flag to 0.

3. CARRY flag will be set to 0, ZERO flag to 1.

4. both CARRY and ZERO flags will be set to 0.

Question ID : 5771

Chosen Answer : --

Q.16 A single SCR is inserted between voltage source $200 \sin(314 t)$ and a load of $R = 10 \Omega$. If the gate trigger voltage lags the AC supply voltage by 120° , then the average load current is:

Ans 1. $-\frac{5}{\pi} A$

2. $\frac{15}{\pi} A$

3. $-\frac{15}{\pi} A$

4. $\frac{5}{\pi} A$

Question ID : 5779

Chosen Option : 4

Q.17 In a synchronous machine, when the rotor speed becomes more than the synchronous speed during hunting, the damping bars develop:

Ans 1. Induction generator torque

2. Induction motor torque

3. DC series motor torque

Question ID : 5711

Chosen Option : 1

4. Synchronous motor torque

Q.18 In a capacitor start single phase motor, when the capacitor is replaced by a resistance during running condition, what will happen?

Question ID : 5708

Chosen Option : 4

Ans 1. The motor will stop.

2. The torque will increase.

3. The direction of rotation will be reversed.

4.

The motor will continue to run in the same direction.

Q.19 A d.c. series motor is by mistake connected to an A.C. supply. The torque produced will be:

Question ID : 5705

Chosen Option : 4

Ans 1. oscillating

2. alternating

3. zero average value

4. pulsating and unidirectional

Q.20 The standardization of a.c. potentiometers is done by using:

Question ID : 5688

Chosen Option : 2

Ans 1. a.c. standard sources and transfer instrument

2.

d.c. standard sources and transfer instruments

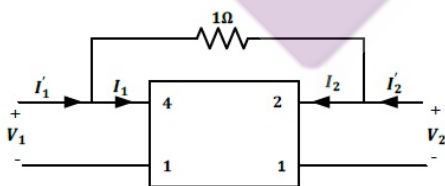
3. a.c. standard voltage source directly

4. d.c. standard sources and d.c. galvanometer

Q.21 Y parameters of the network are given as shown in the figure below. The network is embedded with another resistive circuit as shown. The new Y parameters of the circuit will be:

Question ID : 5678

Chosen Option : 1



Ans 1. $\begin{bmatrix} 5 & 2 \\ 1 & 2 \end{bmatrix}$

2. $\begin{bmatrix} 6 & 1 \\ 0 & 3 \end{bmatrix}$

3. $\begin{bmatrix} 10 & 2 \\ 0 & 4 \end{bmatrix}$

4. $\begin{bmatrix} 5 & 1 \\ 0 & 2 \end{bmatrix}$

Q.22 Maxwell's curl equation for static magnetic field is given by:

Question ID : 5639

Chosen Option : 3

Ans 1. $\nabla \cdot \mathbf{B} = 0$

2. $\nabla \cdot \bar{\mathbf{B}} = \mu_0 \mathbf{J}$

3. $\nabla \times \bar{\mathbf{B}} = \mu_0 \mathbf{J}$

4. $\nabla \cdot \mathbf{B} = \frac{\mu_0}{\mathbf{J}}$

Q.23 Which of the following is an inverse transducer?

Question ID : 5693

Chosen Option : 1

Ans 1. piezo electric crystals

2. resistance potentiometer

3. capacitive transducer

4. L.V.D.T

Q.24 A T-flip flop function is obtained from J-K flip flop. If the flip flop belongs to a TTL family, the connection needed at the input must be

Question ID : 5735

Chosen Option : 1

Ans 1. $\mathbf{J} = 1$ and $\mathbf{K} = 1$

2. $\mathbf{J} = 1$ and $\mathbf{K} = 0$

3. $\mathbf{J} = \mathbf{K} = 0$

4. $\mathbf{J} = 0$ and $\mathbf{K} = 1$

Q.25 The direction of propagation of electromagnetic waves is given by the direction of:

Question ID : 5648

Chosen Option : 1

Ans 1. Vector $(\mathbf{E} \times \mathbf{H})$

2. Vector \mathbf{H}

3. Vector \mathbf{E}

4. $\mathbf{E} \cdot \mathbf{H}$

Q.26 The dummy coils in d.c. machines are used to

Question ID : 5706

Chosen Option : 2

Ans 1. increase efficiency

2. maintain mechanical balance

3. improve commutation

4. reduce sparking

Q.27 A PCM system uses a uniform quantizer followed by an 8-bit encoder. What is the SNR for a full load sinusoidal signal?

Question ID : 5755

Chosen Option : 4

Ans 1. 1.8 dB

2. 50 dB

3. 49.8 dB

4. 68 dB

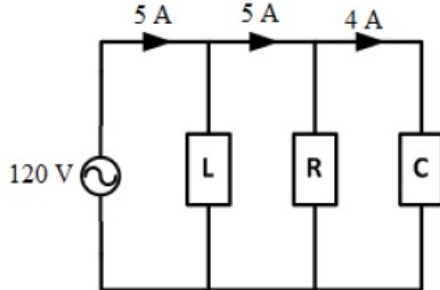
Q.28 Which of the following materials can be used for permanent magnets?

Question ID : 5668

- Ans
- 1. Carbon steel
 - 2. Alnico
 - 3. Iron–Cobalt alloy
 - 4. Barium Ferrite

Chosen Option : 2

Q.29 In the shown figure, the value of current through the inductor will be:



- Ans
- 1. 8 A
 - 2. 5 A
 - 3. 0 A
 - 4. 1 A

Question ID : 5682
Chosen Option : 3

Q.30 For a good conductor, the attenuation factor, α , and phase shift factor, β , are:

- Ans
- 1. $\alpha = \beta = \frac{\omega}{2} \sqrt{\mu\sigma}$
 - 2. $\alpha = \frac{\omega}{2} \sqrt{\mu\sigma}$, $\beta = 90^\circ$
 - 3. $\alpha = \beta = \sqrt{\frac{\omega\mu\sigma}{2}}$
 - 4. $\alpha = \sqrt{\omega\mu\sigma}$, $\beta = 0^\circ$

Question ID : 5650
Chosen Option : 2

Q.31 If the system frequency is 2 MHz, then the time period between two consecutive *MEMW* signals is:

- Ans
- 1. 10 μ sec
 - 2. 20 μ sec
 - 3. 0.5 μ sec
 - 4. 15 μ sec

Question ID : 5772
Chosen Option : 3

Q.32 For implementing Boolean function $F(A, B, C, D) = \sum m(0, 1, 2, 4, 6, 9, 12, 14)$ using 8 : 1 multiplexer with select lines as B, C and D. Which of the following is correct?

- Ans
- 1. I_0 and I_2 are \bar{A}
 - 2. I_0 and I_2 are A
 - 3. I_1, I_3 and I_4 are connected to \bar{A}

Question ID : 5741
Chosen Option : 1

4. I_5, I_6 and I_7 are connected to 0

Q.33 Four memory chips of 256×4 sizes have their address buses connected together. The size of the system will be:

Question ID : 5773

Chosen Option : 1

Ans 1. 1024×4

2. 64×16

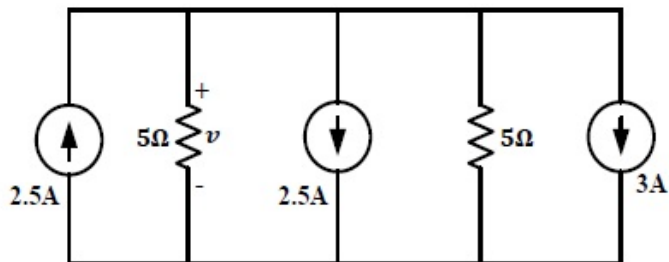
3. 1024×16

4. 256×16

Q.34 In the circuit shown, the value of voltage v across 5Ω is:

Question ID : 5669

Chosen Option : 2



Ans 1. 0 volts

2. 7.5 volts

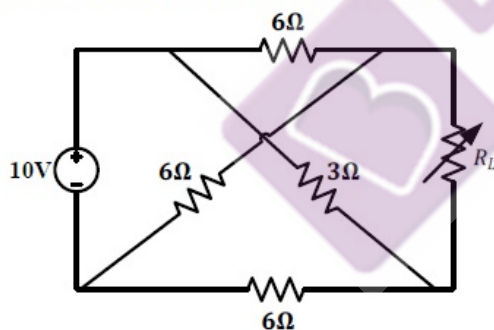
3. 15 volts

4. 40 volts

Q.35 The value of variable resistor for maximum power transfer will be:

Question ID : 5676

Chosen Option : 2



Ans 1. 10Ω

2. 5Ω

3. 25Ω

4. 15Ω

Q.36 The iron losses are neglected during short circuit test of a transformer because:

Question ID : 5699

Chosen Option : 4

Ans 1. copper losses include iron losses

2. the iron core is fully saturated

3.

the supply frequency influences copper losses

4.

the flux produced is very small as compared to the normal flux

Q.37 As compared to power MOSFET, a BJT has:

Question ID : 5776

Chosen Option : 1

- Ans
- 1. higher switching losses but lower conduction losses
 - 2. lower switching losses but higher conduction losses
 - 3. higher switching losses and higher conduction losses
 - 4. lower switching losses and lower conduction losses

Q.38 Why is PWM telemetry system more advantageous as compared to PCM?

Question ID : 5760

Chosen Option : 1

- Ans
- 1. It does not need ADC.
 - 2. It does not need sample and hold circuit.
 - 3. It is expensive.
 - 4. It does not need ADC, and it does not need sample and hold circuit.

Q.39 If the rotor circuit resistance of a 3 phase induction motor is increased, then:

Question ID : 5710

Chosen Option : 2

- Ans
- 1. the starting torque will increase but the maximum torque will remain unchanged.
 - 2. the starting torque will decrease but the maximum torque will remain unchanged.
 - 3. both the starting and the maximum torque will increase.
 - 4. both the starting and the maximum torque will decrease.

Q.40 There is a minimum conductivity conditions for extrinsic semiconductor. What is the resulting minimum conductivity?

Question ID : 5738

Chosen Option : 3

- Ans
- 1. $\sigma_{\min} = 2qn_i \sqrt{\frac{\mu_n}{\mu_p}}$
 - 2. $\sigma_{\min} = \frac{2n_i}{q} \sqrt{\mu_n \mu_p}$
 - 3. $\sigma_{\min} = 2qn_i \sqrt{\mu_n \mu_p}$
 - 4. $\sigma_{\min} = \frac{2n_i}{q} \sqrt{\frac{\mu_n}{\mu_p}}$

Q.41 If all the sequence voltages at the fault point in a power system are equal, then the fault is a:

Question ID : 5719

Chosen Option : 4

- Ans
- 1. 3 phase fault
 - 2. line to line fault
 - 3. line to ground fault
 - 4. double line to ground fault

Q.42 In a nuclear reactor, chain reaction is controlled by

Question ID : 5715

Chosen Option : 3

- Ans
- 1. Iron rods
 - 2. Graphite rods
 - 3. Cadmium rods
 - 4. Brass rods

Q.43 While measuring liquid level with fibre optic transducers, the fibre rod or cable is cut in the form of a:

Question ID : 5694

Chosen Answer : --

- Ans
- 1. rectangle
 - 2. prism
 - 3. sphere
 - 4. triangle

Q.44 For a given OP-AMP, CMRR is 10^5 and differential gain is 10^5 . What is the common mode gain of OP-AMP?

Question ID : 5736

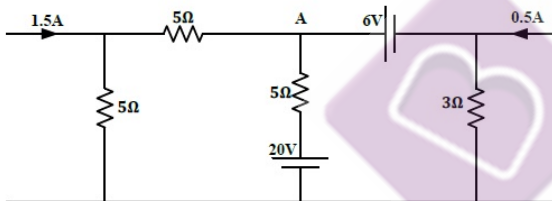
Chosen Option : 3

- Ans
- 1. 2×10^5
 - 2. 10^5
 - 3. 1
 - 4. 10^{10}

Q.45 In the circuit shown in the figure below, the voltage at node "A" is

Question ID : 5670

Chosen Option : 4



1.
14 volts

Ans

- 2.





-6 volts

 3.
6 volts

 4.
11.45 volts



Q.46 By matching which of the following individual machines, the load frequency control is achieved?

- Ans  1. Generated voltages
-  2. Turbine and generator ratings
-  3. Reactive power
-  4. Turbine inputs

Question ID : 5723
Chosen Option : 4

Q.47 Velocity of plane EM waves in vacuum is given by:

Question ID : 5649
Chosen Option : 1

Ans

1. $c = \frac{1}{\sqrt{\mu_0 \epsilon_0}}$

2. $c = \sqrt{\mu_0 \epsilon_0}$

3. $c = \sqrt{\frac{\epsilon_0}{\mu_0}}$

4. $c = \sqrt{\frac{\mu_0}{\epsilon_0}}$

Q.48 The rotor power output of a 3 phase induction motor is 15 kW and the corresponding slip is 4%. The rotor copper losses will be:

Ans 1. 500 W

2. 525 W

3. 625 W

4. 600 W

Question ID : 5712

Chosen Option : 3

Q.49 The transient stability of a power station can be increased by introducing

Ans 1. shunt capacitance

2. shunt inductance

3. series inductance

4. series capacitance

Question ID : 5722

Chosen Option : 2

Q.50 Line insulators are made of:

Ans 1. Porcelain

2. Mica

3. PVC

4. Marble

Question ID : 5665

Chosen Option : 1

Q.51 Number of memory chips required to design 40K-byte memory if the memory chips size is 1024×1 , is

Ans 1. 32 chip

2. 64 chip

3. 12 chip

4. 48 chip

Question ID : 5739

Chosen Option : 1

Q.52 In a thyristor,

Ans 1. both I_L and I_H are associated with the turn on process.

2.

both I_L and I_H are associated with the turn off process.

Question ID : 5775

Chosen Option : 3

✓ 3.

I_H is associated with the turn off process and I_L is associated with the turn on process.

✗ 4.

latching current I_L is associated with the turn off process and holding current I_H is associated with the turn on process.

Q.53 The positive sequence component of voltage at the point of fault is zero, when the fault is

Ans ✗ 1. line to line fault

✓ 2. three phase fault

✗ 3. line to line to ground fault

✗ 4. line to ground fault

Question ID : 5718

Chosen Option : 2

Q.54 Gauss' law relates the electric field intensity E with volume charge density ρ at a point as:

Ans ✗ 1. $\nabla \times \mathbf{E} = \frac{1}{\epsilon_0} \rho$

✗ 2. $\nabla \cdot \mathbf{E} = \frac{\nabla \rho}{\epsilon}$

✗ 3. $\nabla \times \mathbf{E} = \epsilon_0 \rho$

✓ 4. $\nabla \cdot \mathbf{E} = \frac{1}{\epsilon_0} \rho$

Question ID : 5640

Chosen Option : 4

Q.55 The advantage of LVDT over the inductive bridge-type transducer is that:

Ans ✓ 1. it can measure displacement of a moving object

✗ 2.

it produces high output voltage for small changes in core position

✗ 3.

it can be used in extremely low and extremely high temperature

✗ 4. stray magnetic field has no effect

Question ID : 5697

Chosen Option : 1

Q.56 If 90 kHz carrier is amplitude modulated by the speech band of 200 Hz to 2 kHz, then the range of upper and lower side bands will respectively be:

Ans ✗ 1. 45.2 to 47 and 42.8 to 44

✓ 2. 90.2 to 92 and 88.0 to 89.8

✗ 3. 92.2 to 94.8 and 88 to 92

✗ 4. 88.0 to 89.8 and 92.2 to 98.8

Question ID : 5749

Chosen Option : 2

Q.57 Polarization of a radio wave is taken as the:

Ans ✗ 1. normal to the direction of magnetic field

✗ 2. direction of magnetic field in space

✗ 3.

normal to direction of the lines of force in the electric field

✓ 4.

direction of the lines of force in the electric field

Question ID : 5651

Chosen Option : 4

Q.58 The relative permeability of the medium μ_r is related to its own permeability μ and permeability of free space μ_0 as:

Question ID : 5641

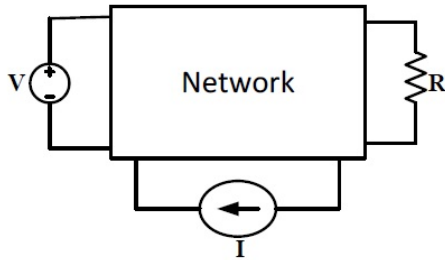
Chosen Option : 3

- Ans
1. $\mu = \frac{\mu_r}{1-\mu_0}$
2. $\mu_0 = \mu\mu_r$
3. $\mu_r = \frac{\mu}{\mu_0}$
4. $\mu_r = \mu\mu_0$

Q.59 A network consists of voltage source "V" and current source "I" and several resistors as shown in the figure:

Question ID : 5672

Chosen Option : 2



A particular resistor "R" dissipates a power of 4 watts when voltage source alone is active. The same resistor dissipates power of 9 watts when current source alone is active. The power dissipated by "R" when both the sources are active is:

1.
25 watts

Ans

2.
13 watts

- 3.

4.
0 watts

Q.60 In the circle diagram for a 3 phase induction motor, the diameter of the circle is determined by:

- Ans**
- 1. rotor current referred to stator
 - 2. rotor current
 - 3. exciting current
 - 4. total stator current

Question ID : 5709

Chosen Option : 1

Q.61 The maximum theoretical efficiency of class B push-pull transistor amplifier is approximately:

- Ans**
- 1. 78.6%
 - 2. 28.6%
 - 3. 50%
 - 4. 70%

Question ID : 5731

Chosen Option : 1

Q.62 The intrinsic impedance of a good conducting medium is:

- Ans**
- 1. $\sqrt{\frac{\omega\mu}{\sigma}} < \frac{\pi}{2}$
 - 2. $\sqrt{\frac{\omega\mu}{\sigma}} < 0^\circ$
 - 3. $\frac{1}{\sigma} \sqrt{\omega\mu} < \frac{\pi}{2}$

Question ID : 5652

Chosen Option : 1

✓ 4. $\sqrt{\frac{\omega \mu}{\sigma}} < 45^\circ$

Q.63 In a hydro-power station, a surge tank is provided to

Question ID : 5714

Chosen Option : 1

- Ans ✓ 1. control pressure variations in pipes due to sudden load variations
- ✗ 2. reduce the diameter of penstock pipes
- ✗ 3. control the water flow in the turbine
- ✗ 4. increase the supply of water

Q.64 At lagging loads, the effect of armature reaction in an alternator is

Question ID : 5707

Chosen Option : 3

- Ans ✗ 1. neutralizing
- ✗ 2. cross magnetizing
- ✗ 3. demagnetizing
- ✓ 4. magnetizing

Q.65 In a microprocessor, the register which holds the address of the next instruction to be fetched is:

Question ID : 5770

Chosen Option : 2

- Ans ✗ 1. Stack pointer
- ✓ 2. Program counter
- ✗ 3. Instruction register
- ✗ 4. Accumulator

Q.66 The V curves of a synchronous motor show the relationship between

Question ID : 5704

Chosen Option : 1

- Ans ✓ 1. armature current and field current
- ✗ 2. field current and voltage
- ✗ 3. armature current and torque
- ✗ 4. field current and torque

Q.67 Which of the following expressions gives the magnetic field intensity H at a radius r within a copper conductor carrying a current I and having its radius R?

Question ID : 5643

Chosen Option : 2

- Ans ✗ 1. $H = \frac{Ir}{2\pi R}$
- ✓ 2. $H = \frac{Ir}{2\pi R^2}$
- ✗ 3. $H = \frac{I}{2\pi r}$
- ✗ 4. $H = \frac{I}{\pi r^2}$

Q.68 Determine the permissible range in maximum modulation index for commercial FM that has 25 Hz to 25 kHz modulating frequencies.

Question ID : 5751

- Ans 1. 3 to 3000
 2. 3 to 300
 3. 2 to 2000
 4. 5 to 50

Chosen Answer : --

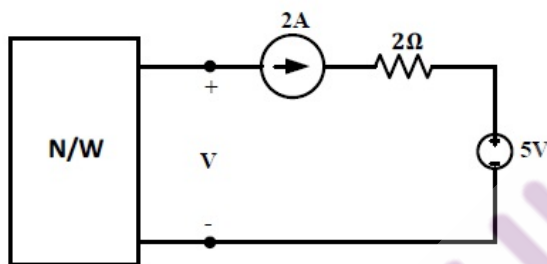
Q.69 Insulator used in a commutator is:

- Ans 1. Mica
 2. PVC
 3. Glass
 4. Wood

Question ID : 5666

Chosen Option : 1

Q.70 What is the value of voltage "V" in the figure given below?



Question ID : 5675

Chosen Option : 2

- Ans 1. 5 volts
 2. 1 volt
 3. 9 volts
 4. It cannot be calculated.

Q.71 An Amplitude Modulated System consist of 110 MHz bandwidth for the transmission of AM signal. If the audio frequency used to modulate the carrier does not exceed by 5 kHz, then how many stations could transmit within this band simultaneously?

- Ans 1. 1000
 2. 1100
 3. 110
 4. 11,000

Question ID : 5750

Chosen Option : 4

Q.72 The characteristics impedance of a lossless transmission line is:

- Ans 1. $\sqrt{\frac{L}{C}}$
 2. $\sqrt{\frac{C}{L}}$
 3. $\frac{1}{\sqrt{LC}}$
 4. \sqrt{LC}

Question ID : 5653

Chosen Option : 1

Q.73 In which pulse modulation system, is the highest signal to noise ratio achieved?

- Ans 1. PPM
 2. Equal in all three
 3. PWM
 4. PAM

Question ID : 5754
Chosen Option : 3

Q.74 A synchronous motor with negligible armature resistance runs at a load angle of 20° at the rated frequency. If the supply frequency is increased by 10%, keeping other parameters constant, the new load angle will be:

- Ans 1. 14°
 2. 20°
 3. 22°
 4. 12°

Question ID : 5703
Chosen Option : 3

Q.75 The number of address lines required to address a memory of size 16K is:

- Ans 1. 14 Lines
 2. 16 Lines
 3. 15 Lines
 4. 12 Lines

Question ID : 5737
Chosen Option : 1

Q.76 What is a TRAP?

- Ans 1. Highest priority interrupt
 2. Both Highest priority interrupt and Vectored interrupt
 3. Vectored interrupt
 4. Maskable interrupt

Question ID : 5767
Chosen Option : 1

Q.77 Maximum execution time is required for the instruction:

- Ans 1. NOP
 2. CALL adder
 3. MOV A,M
 4. JMP adder

Question ID : 5763
Chosen Answer : --

Q.78 A very large generating unit is feeding power to a grid. Which of the protection schemes is used for detection of loss of excitation of the generating unit?

- Ans 1. offset mho relay
 2. under frequency relay
 3. percentage differential relay
 4. under voltage relay

Question ID : 5725
Chosen Option : 1

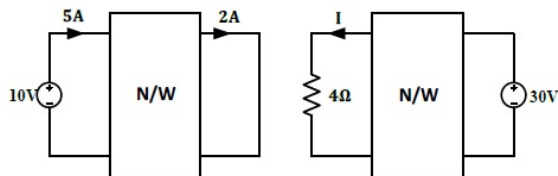
Q.79 In a.c. bridges, Wagner earthing device is used to eliminate:

Question ID : 5689
Chosen Option : 1

- Ans 1. stray capacitance between detector terminal and ground
2. effect of stray magnetic fields
3. all stray capacitances
4. power factor

Q.80 If the two circuits shown in the figure below are reciprocal, then what is the value of current I?

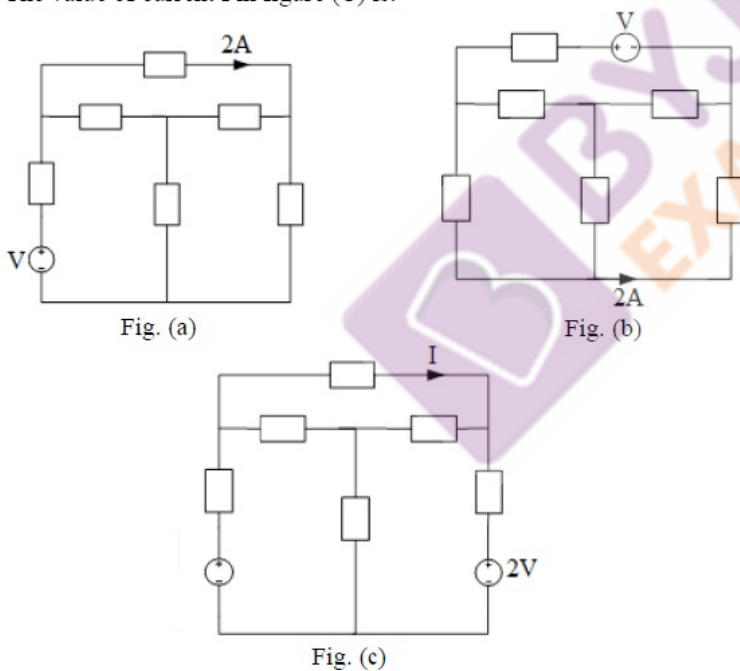
Question ID : 5677
Chosen Option : 3



- Ans 1. 7.5 A
2. 2 A
3. It cannot be determined.
4. 7 A

Q.81 The value of current I in figure (C) is:

Question ID : 5673
Chosen Option : 2



- Ans 1. 2 Amp
2. -2 Amp
3. 6 Amp
4. -6 Amp

Q.82 The Laplace transformation of the given expression is:
 $f(t) = u(t(t^2 - 4))$

Question ID : 5681
Chosen Option : 1

Ans

1. $F(s) = \frac{e^{-2s}}{s} - \frac{e^{2s}}{s} + \frac{1}{s}$

2. $F(s) = \frac{3}{s^4} - \frac{4}{s^2}$

3. $F(s) = \frac{3}{s^{-4}} - \frac{4}{s^{-2}}$

4. $F(s) = \frac{e^{-2s}}{s} + \frac{e^{2s}}{s} - \frac{1}{s}$

Q.83 Forbidden band is the largest in:

Ans 1. Semiconductor

2. Conductor

3. Superconductor

4. Insulator

Question ID : 5654

Chosen Option : 4

Q.84 When photodiode is operating in forward biased condition, what happens to the diode current with increase in incident light?

Ans 1. It remains a constant, but the voltage drop across diode increases.

2. It remains a constant.

3. It decreases.

4. It increases.

Question ID : 5734

Chosen Option : 4

Q.85 A compander is used in digital communication system to:

Ans 1. reduce noise

2. improve SNR

3. improve the frequency response

4. compress the bandwidth

Question ID : 5758

Chosen Answer : --

Q.86 To avoid crossover distortion in power amplifier Q-point is set:

Ans 1. at the cutoff

2. slightly above the cutoff

3. slightly below the cutoff

4. anywhere on the load line

Question ID : 5729

Chosen Answer : --

Q.87 Area of hysteresis loop represents:

Ans 1. Iron losses

2. Hysteresis losses

3. Eddy current losses

4. Copper losses

Question ID : 5662

Chosen Option : 2

Q.88 SMPSs are superior to linear power supplies in respect of:

Question ID : 5787

Chosen Option : 1

- Ans 1. Size and efficiency
 2. Regulation and noise
 3. Efficiency and regulation
 4. Noise and cost

Q.89 High frequency transformer cores are generally made of:

Question ID : 5661

Chosen Option : 2

- Ans 1. Mu- metal
 2. Ferrite
 3. Cast iron
 4. Graphite

Q.90 The primary advantage of PCM system is:

Question ID : 5757

Chosen Option : 2

- Ans 1. Lower noise
 2. Lower bandwidth
 3. Lower cost
 4. Lower power requirement

Q.91 The resistance of a 125 ohm strain gauge changes by one ohm for 4000 micro strain. The gauge factor of the strain gauge is:

Question ID : 5698

Chosen Option : 1

- Ans 1. 2
 2. 4
 3. 1
 4. 3

Q.92 Which of the following materials has the maximum dielectric strength?

Question ID : 5663

Chosen Option : 3

- Ans 1. Soft rubber
 2. Polystyrene
 3. Porcelain
 4. Glass

Q.93 An auto-transformer having a transformation ratio of 0.9 supplies a load of 10 kW. The power transferred inductively from primary to secondary is:

Question ID : 5702

Chosen Option : 1

- Ans 1. 9 kW
 2. 8 kW
 3. 10 kW
 4. 1 kW

Q.94 For the stable operation of an interconnected system, which passive element can be used as interconnecting element?

Question ID : 5717

- Ans
- 1. Resistor
 - 2. Capacitor
 - 3. Reactor
 - 4. Relay

Chosen Option : 3

Q.95 The output DC voltage of a rectifier is 25 V and rms voltage is 2.5 V. The ripple factor of this waveform will be:

- Ans
- 1. 2%
 - 2. 10%
 - 3. 1%
 - 4. 25%

Question ID : 5732

Chosen Option : 2

Q.96 Ampere's circuital law can be defined in terms of the current enclosed by the contour of wire $\oint_c I dl$ as:

- Ans
- 1. $\oint B dl = \frac{1}{\epsilon_0} \oint_c I dl$
 - 2. $\oint B dl = \frac{1}{4\pi\epsilon_0} \oint_c I dl$
 - 3. $\oint B dl = \epsilon_0 \oint_c I dl$
 - 4. $\oint B dl = \mu_0 \oint_c I dl$

Question ID : 5645

Chosen Option : 4

Q.97 Materials whose specific resistance abruptly falls at very low temperature are called:

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

Question ID : 5657

Chosen Option : 4

Q.98 Which of the following is not a Maxwell's equation?

- Ans
- 1. $\nabla \times E = -B'$
 - 2. $\nabla \cdot B = 0$
 - 3. $\nabla \cdot D = \rho$
 - 4. $\nabla \cdot E = -B$

Question ID : 5644

Chosen Option : 4

Q.99 A DC chopper is fed from constant voltage mains. The duty ratio α of the chopper is progressively increased while the chopper feeds RL load. The per unit current ripple would:

- Ans
- 1. Increase to a maximum value at $\alpha = 0.5$ and then decrease

Question ID : 5783

Chosen Option : 1

2. Increase progressively

3.

Decrease to a minimum value at $\alpha = 0.5$ and then increase

4. Decrease progressively

Q.10
0 Two transformers operating in parallel will share the load depending upon their:

Question ID : 5701

Chosen Option : 4

Ans 1. copper and iron losses

2. turns ratio

3. ratings

4. per unit impedance

Q.10
1 A chopper, in which current remains positive but voltage may be positive or negative, is known as:

Question ID : 5782

Chosen Option : 4

Ans 1. Type – D

2. Type – C

3. Type – A

4. Type – B

Q.10
2 Resonant mode power supplies in comparison to square mode ones:

Question ID : 5674

Chosen Answer : --

Ans 1. are slower in control action

2. have negligible power loss

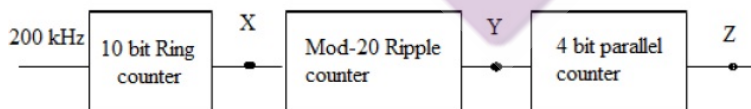
3. do not cause over voltages

4. have smaller component count

Q.10
3 The frequency of the pulse at Z in the diagram shown below is:

Question ID : 5744

Chosen Option : 4



Ans 1. 64 kHz

2. 20.5 Hz

3. 1 kHz

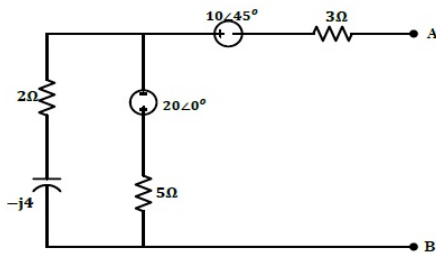
4. 62.5 Hz

Q.10
4

Question ID : 5671

Chosen Option : 3

Thevenin's Equivalent across AB is given by:



- Ans
- 1. $9.45\angle-56^\circ \Omega, 20.54\angle-124^\circ$ volts
 - 2. $9.45\angle-56^\circ \Omega, 20.54\angle 124^\circ$ volts
 - 3. $5.526\angle -16.16^\circ \Omega, 16.879\angle 171.079^\circ$ volts
 - 4. $5.526\angle -16.16^\circ \Omega, 16.879\angle -171.079^\circ$ volts

Q.10
5 Equal area criterion gives information about

- Ans
- 1. relative stability
 - 2. absolute stability
 - 3. swing curves
 - 4. stability region

Question ID : 5721

Chosen Option : 2

Q.10
6 It is reported that the resistance values of two resistances are $100 \Omega \pm 5\Omega$ and $125 \Omega \pm 15\Omega$. The resistances are connected in series. If the deviations are standard deviations, the resultant total resistance is:

- Ans
- 1. $225 \Omega \pm 10.6 \Omega$
 - 2. $225 \Omega \pm 15.8 \Omega$
 - 3. $225 \Omega \pm 20 \Omega$
 - 4. $225 \Omega \pm 10 \Omega$

Question ID : 5685

Chosen Option : 2

Q.10
7 The rate of rise of restriking voltage in a circuit breaker depends upon the:

- Ans
- 1. both on the inductance and capacitance of the system
 - 2. type of circuit breaker
 - 3. inductance of the system only
 - 4. capacitance of the system only

Question ID : 5727

Chosen Option : 1

Q.10
8 In an ideal transformer:

- Ans
- 1. the phase angle between applied voltage and emf is 90° .

Question ID : 5700

Chosen Option : 2

✓ 2.

the magnetizing current is in phase with the flux.

✗ 3.

the flux is 180° out of phase with induced emf.

✗ 4.

the applied voltage is in phase with the induced emf.

Q.10 In a three phase full converter, if load current is I and ripple free, then average and RMS values of thyristor are respectively:

Question ID : 5781

Chosen Option : 4

Ans ✗ 1. $\frac{I}{\sqrt{3}}, \frac{I}{3}$

✗ 2. $\frac{I}{2}, \frac{I}{\sqrt{2}}$

✗ 3. $\frac{I}{\sqrt{2}}, \frac{I}{2}$

✓ 4. $\frac{I}{3}, \frac{I}{\sqrt{3}}$

Q.11 The minimum input required to activate an instrument to produce an output is called:

Question ID : 5684

Chosen Option : 3

Ans ✗ 1. accuracy

✗ 2. creep

✓ 3. threshold

✗ 4. resolution

Q.11 To measure 'Displacement', a capacitive transducer is superior to Inductive type because of:

Question ID : 5696

Chosen Option : 1

Ans ✗ 1. absence of nonlinearity

✗ 2. high accuracy

✓ 3. high frequency response

✗ 4. small size

Q.11 For normal SCRs, the turn on time is _____ the turn off time.

Question ID : 5777

Chosen Option : 4

Ans ✗ 1. about half of

✗ 2. equal to

✗ 3. more than

✓ 4. less than

Q.11 The pin of 8085 that demultiplexes the address and data pins is called:

Question ID : 5762

Chosen Option : 2

Ans ✗ 1. HLDA

✗ 2. HOLD

3. IO/M

4. ALE

Q.11
4 Which of the following is a ferroelectric material?

Question ID : 5659

Chosen Option : 3

Ans 1. Stainless steel

2. Barium nitrate

3. Wrought iron

4. Brass

Q.11
5 In the case of HVDC transmission system, which of the statements is True?

Question ID : 5724

Chosen Option : 4

Ans 1.
No charging current but skin effect is present.

2.

There are charging current but no skin effect.

3.

Both charging current and skin effect are present.

4.

There is neither charging current nor skin effect.

Q.11
6 The source of harmonics in a transformer supplied by a voltage source of fundamental frequency is:

Question ID : 5713

Chosen Option : 2

Ans 1. overloading

2. loose laminations

3. saturation of core

4. poor insulation

Q.11
7 What is the total electric flux in a sphere of radius 10 m, enclosing a charge of 1000 coulombs?

Question ID : 5642

Chosen Option : 2

Ans 1. 10

2. 1000

3. 100

4. 1

Q.11
8 The ceramic dielectric used in electrical engineering includes:

Question ID : 5664

Chosen Option : 4

Ans 1. Porcelain and cermet

2. Silicide and cordierite

3. Cermet and silicide

4. Cordierite and porcelain

Q.11
9 Materials having high dielectric constant, which is non-linear, are called

Question ID : 5660

- Ans 1. Hard dielectrics
2. Ferroelectric materials
3. Paramagnetic materials
4. Super dielectrics

Chosen Option : 1

Q.12
0 Which of the following counters has the highest speed?

Question ID : 5745

Chosen Answer : --

- Ans 1. Ring counter
2. Synchronous
3. Asynchronous
4. Ripple counter

Q.12
1 The temperature coefficient of resistance of an insulator is:

Question ID : 5667

Chosen Option : 1

- Ans 1. Negative and dependent on temperature
2. Positive and dependent on temperature
3. Negative and independent of temperature
4. Positive and independent of temperature

Q.12
2 The total electric and magnetic intensities \vec{E} and \vec{H} respectively are related for a uniform plane wave as:

Question ID : 5647

Chosen Option : 1

- Ans 1. $\frac{E}{H} = \sqrt{\frac{\mu_0}{\epsilon_0}}$
2. $\frac{E}{H} = \mu_0 \epsilon_0$
3. $EH = \epsilon_0$
4. $EH = \mu_0$

Q.12
3 Non-coherent demodulation refers to the system employing demodulators that are designed to operate without knowledge of the incoming signal's:

Question ID : 5748

Chosen Option : 1

- Ans 1. phase
2. current
3. voltage
4. power

Q.12
4 In semi-conductor strain gauges, on application of tensile strain, the resistance will:

Question ID : 5692

Chosen Answer : --

- Ans 1. increase in both p- and n-type materials
2. increase in p-type materials
3. decrease in both p- and n-type materials

4. increase in n-type materials

Q.12 Which 8085 instruction is equivalent to 1 byte unconditional JUMP instruction?
5

Question ID : 5769

Chosen Answer : --

- Ans 1. RESTART
 2. PCHL
 3. DCX
 4. SPHL

Q.12 If V_{DS} represents drain to source voltage, V_{GS} represents gate to source voltage, V_{GD} represents gate to drain voltage and I_D represents drain current, then the transfer characteristic of any MOSFET is drawn between:
6

Question ID : 5788

Chosen Option : 2

- Ans 1. V_{GD} and I_D
 2. V_{DS} and I_D
 3. V_{DS} and V_{GS}
 4. V_{GS} and I_D

Q.12 Number of flip - flops required to implement divide by 20 Johnson counter is:
7

Question ID : 5746

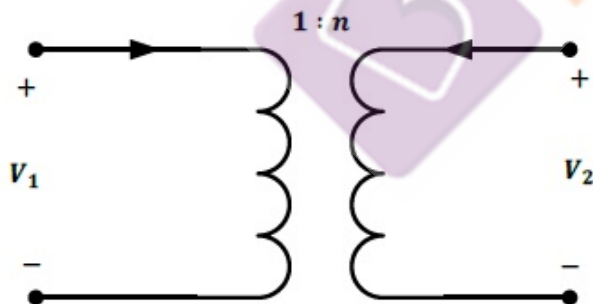
Chosen Option : 4

- Ans 1. 15
 2. 25
 3. 20
 4. 10

Q.12 T parameter of the networks shown in the figure is:
8

Question ID : 5679

Chosen Answer : --



- Ans 1. $\begin{bmatrix} n & 0 \\ 0 & 1 \end{bmatrix}$
 2. $\begin{bmatrix} \frac{1}{n} & 0 \\ 0 & n \end{bmatrix}$
 3. $\begin{bmatrix} \frac{1}{n} & 0 \\ 0 & -n \end{bmatrix}$
 4. $\begin{bmatrix} 1 & n \\ 0 & 0 \end{bmatrix}$

Q.12 The charging reactance of 50 km length of the line is 1500 Ω . What will be the charging reactance for 100 km length of the line?

Question ID : 5726

Chosen Option : 1

- Ans 1. 750 Ω
 2. 600 Ω
 3. 1500 Ω
 4. 3000 Ω

Q.13 Thermal noise power is directly proportional to:

Question ID : 5752

Chosen Answer : --

- Ans 1. the bandwidth over which the noise is to be measured
 2. the resistance of the antenna
 3. both the voltage of the signal and the resistance of the antenna
 4. the voltage of the signal

Q.13 The voltage of a circuit is measured by a voltmeter whose input impedance is low as compared to the output impedance of the circuit. The error caused will be due to:

Question ID : 5687

Chosen Option : 1

- Ans 1. loading effect
 2. system error
 3. random error
 4. gross error

Q.13 In a compensated wattmeter, the readings are corrected for errors due to:

Question ID : 5686

Chosen Option : 3

- Ans 1. variations in voltage and frequency
 2. power consumed in potential coil
 3. power consumed in current coil
 4. friction

Q.13 If two identical transistors each having a current gain of 50 is connected in Darlington connection, the current gain of the connection will be:

Question ID : 5765

Chosen Option : 2

- Ans 1. 500
 2. 2500
 3. 2250
 4. 625

Q.13 In a power station, the cost of generation of power is considerably reduced when

Question ID : 5716

Chosen Option : 2

- Ans 1. the diversity factor decreases
 2. both the diversity factor and the load factor increase
 3. the diversity factor increases and the load factor decreases

4. both the diversity factor and the load factor decrease

Q.13
5 Turn off time of an SCR is measured from the instant:

Question ID : 5774

Chosen Option : 4

- Ans 1. Gate current becomes zero
2. Anode voltage becomes zero
3. Anode voltage and current become zero at the same time
4. Anode current becomes zero

Q.13
6 Which of the following bridges can be used to measure frequency?

Question ID : 5690

Chosen Option : 3

- Ans 1. Maxwell's bridge
2. Schering bridge
3. Wiens bridge
4. De Sauty bridge

Q.13
7 The spectral density of which noise is constant for all frequency ranges?

Question ID : 5759

Chosen Option : 1

- Ans 1. White noise
2. Internal noise
3. Shot noise
4. Solar noise

Q.13
8 The e.m.f. developed by a thermocouple depends upon

Question ID : 5695

Chosen Option : 4

- Ans 1. materials used, diameter of wires and temperature gradient
2. length of wires and temperature difference at two ends
3. materials used, shape and size of materials and temperature difference
4. materials used and temperatures of hot and cold junctions

Q.13
9 The noise figure of an amplifier whose noise equivalent resistance, R_{eq} , is 3500 and thermal equivalent resistance, R_t , is 500 derived by a generator whose output impedance equals 100 Ω is:

Question ID : 5753

Chosen Answer : --

- Ans 1. 33
2. 31
3. 301
4. 303

Q.14
0 Which of the following instructions is used for serial input operation?

Question ID : 5764

Chosen Answer : --

- Ans 1. INTR

2. SIM

3. SID

4. RIM

Q.14 For audio and speech signal transmission the best choice is:

1

Ans 1. Uniform quantizer

2. Null quantizer

3. Universal quantizer

4. Non-uniform quantizer

Question ID : 5761

Chosen Option : 4

Q.14 A single phase AC voltage controller or regulator fed from 50 Hz system supplies a load having resistance and inductance of 2.0Ω and 6.36 mH respectively. The control range of firing angle for this regulator is:

2

Ans 1. $90^\circ < \alpha < 180^\circ$

2. $0^\circ < \alpha < 45^\circ$

3. $0^\circ < \alpha < 180^\circ$

4. $45^\circ < \alpha < 180^\circ$

Question ID : 5786

Chosen Option : 4

Q.14 BCD counter is also known as

3

Ans 1. MOD – 8 counter

2. MOD – 16 counter

3. MOD – 4 counter

4. MOD – 10 counter

Question ID : 5740

Chosen Answer : --

Q.14 Which of the following statements is/are correct in connection with inverters?

4

Ans 1. Only VSI requires feedback diodes

2. GTO's can be used in feedback diodes

3. Only CSI requires feedback diodes

4. VSI and CSI both require feedback diodes

Question ID : 5784

Chosen Option : 1

Q.14 Metallic copper is a:

5

Ans 1. Ferromagnetic substance

2. Ferrimagnetic substance

3. Paramagnetic substance

4. Diamagnetic substance

Question ID : 5658

Chosen Option : 4

Q.14 In constructing a K- map, the order is obtained by using:

6

Ans 1. Gray code progression

Question ID : 5742

Chosen Answer : --

2. Binary coded decimal code

3. Excess – 3 code

4. Binary code progression

Q.14
7 An analog voltage signal whose highest significant frequency is 1 kHz is to be digitally coded with a resolution of 0.01% covering the voltage range up to 10 volts. To avoid loss of information, the minimum number of bits in the digital code should be:

Question ID : 5691

Chosen Answer : --

Ans 1. 2

2. 14

3. 4

4. 8

Q.14
8 An amplifier has an output impedance and input impedance as $1000\ \Omega$ and $100\ \Omega$, an open loop gain of 1000. A feedback network with feedback factor of 0.999 is connected to the amplifier in a voltage series feedback mode. The new input and output impedances are:

Question ID : 5730

Chosen Option : 4

Ans 1. $10\ \Omega$ and $10\ \Omega$

2. $100\ \text{K}\Omega$ and $1\ \text{K}\Omega$

3. $10\ \Omega$ and $1\ \Omega$

4. $100\ \text{K}\Omega$ and $1\ \Omega$

Q.14
9 For which of the following materials is the Hall coefficient zero?

Question ID : 5655

Chosen Option : 3

Ans 1. Alloy

2. Insulator

3. Intrinsic semiconductor

4. Metal

Q.15
0 An audio signal of 15 kHz is digitized by a 5-bit PCM system. Number of bits/sec required to encode this audio signal will be:

Question ID : 5756

Chosen Option : 4

Ans 1. 300 kbps

2. 30 kbps

3. 150 kbps

4. 75 kbps

Q.1 Four letter clusters are given below out of which three are alike in some manner and one is different. Which is different from the rest?

Question ID : 5801

Chosen Option : 2

Ans 1. BEIN

2. TQNK

3. HJMQ

4. WURN

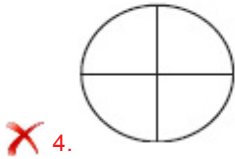
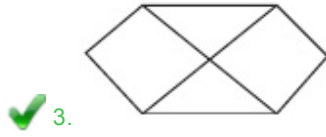
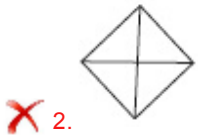
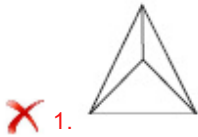
Q.2

Four figures are given below out of which three are similar in a certain way and one is different. Which of the given figures is different from the other three?

Question ID : 5802

Chosen Option : 4

Ans



Q.3 Which number will replace the question mark in the number series below?

2, 3, 8, 27, ?, 565

Question ID : 5793

Chosen Answer : --

Ans

1. 112

2. 140

3. 119

4. 102

Q.4 Which number will replace the question mark in the number series below?

4, 9, 14, 21, 28, ?, 46

Question ID : 5792

Chosen Option : 3

Ans

1. 36

2. 35

3. 37

4. 39

Q.5 Reading a lesson critically requires the reader to read slowly and, mark his thoughts and questions on the text using a pencil. Reading is an active participation with the text.

Question ID : 5806

Chosen Option : 3

Which of the following statements is logically best supported by the paragraph given above?

Ans

1. Critical reading requires attention.

2. Critical reading is a slow and dull process.

3.

Readers should always examine the truth value of what they read.

4.

Critical reading should take place when the mind is stable.

Q.6 Aman's school bus leaves his house and takes one left turn and two right turns to reach his school. If the bus is facing West when it reaches the school, which direction was the bus facing when it left Aman's house?

Question ID : 5798

Chosen Option : 3

Ans

1. East

2. North

3. South

4. South-West

Q.7 Arrange the following words in a meaningful sequence and choose the appropriate number sequence from the options below.

1. Room 2. Switch on 3. Market 4. Television 5. Door 6. Key

Question ID : 5796

Chosen Option : 2

Ans 1. 6, 1, 5, 3, 2, 4

2. 3, 6, 5, 1, 2, 4

3. 4, 5, 6, 2, 1, 3

4. 3, 6, 5, 2, 4, 1

Q.8 Each of the following two rows contains 3 numbers. Some rules are given below to be used for getting the resultant for each row separately. Apply the rules for each row from left to right and answer the question.

Rules:

- (i) If an even number is followed by an even number, the first number is to be subtracted from the second number.
- (ii) If an odd number is followed by a prime number, the odd number is to be subtracted from the square of the prime number.
- (iii) If an odd number is followed by an odd but not a prime number, both are to be added.
- (iv) If an even number is followed by an odd number, both are to be multiplied.

Row I: 17, 9, 5

Row II: 14, 18, 13

What is the difference between the resultants of the first row and the second row?

Ans 1. 242

2. 208

3. 108

4. 78

Q.9 A father is now twice as old as his son. Fifteen years back, he was three times as old as his son. What is the present age of the son?

Ans 1. 25 yr

2. 35 yr

3. 30 yr

4. 20 yr

Question ID : 5794

Chosen Option : 3

Q.10 Four words are given below out of which three are alike in some way and one is different. Which is different from the rest?

Ans 1. Aunt

2. Mother

3. Uncle


Question ID : 5800

Chosen Option : 4

4. Cousin

Q.11 Some friends planned to spend a total of Rs 300 for a get-together. Since two of them did not turn up, each of the remaining friends had to pay Rs 40 extra to pay the bill for Rs 300. How many friends participated in the get-together?

Question ID : **5795**
Chosen Option : 1

- Ans 1. 3
 2. 6
 3. 
 4. 5

Q.12 Some words translated from an artificial language into English are given below.

frontivostem means 'tennis court'

oltagfronti means 'court room'

Which word in this artificial language would mean 'guest room'?

Question ID : **5804**
Chosen Option : 1

- Ans 1. *oltagomelon*
 2. *frontiomelon*
 3. *omelonoltag*
 4. *oltagvosty*

Q.13 Find out the word-pair in which the two words hold the same relationship as the two words in the word-pair given below.





Square : Cube

Question ID : **5789**
Chosen Option : 3

- Ans 1. Perimeter : Area
 2. Triangle : Rectangle
 3. Circle : Sphere
 4. Cylinder : Prism

Q.14 Four figures are given below out of which three are similar in a certain way and one is different. Which of the given figures is different from the other three?

Question ID : **5803**
Chosen Option : 2

- Ans 1. 
 2. 
 3. 
 4. 

Q.15 The two terms on the left side of the sign '::' are related in a certain way. The same relationship holds for the second pair of terms on the right side of the sign '::', of which one is missing. Which of the following is the missing one?

BDGK : CFJO :: YWTP : ?

Question ID : 5790
Chosen Option : 2

- Ans
- 1. XTPK
 - 2. XUQL
 - 3. XUPL
 - 4. WTPK

Q.16 Pointing to a photograph, A said, "His father is my father's only son". Whose photograph was it?

Question ID : 5797
Chosen Option : 2

- Ans
- 1. A's own
 - 2. A's father
 - 3. A's son
 - 4. A's cousin

Q.17 Two statements are followed by two conclusions numbered I and II. Assuming the statements to be true, even if they are at variance with commonly known facts, decide which of the conclusions logically follows from the given statements and mark your answer accordingly.

Question ID : 5808
Chosen Option : 2

Statements:

- 1. All athletes are players.
- 2. All students are athletes.

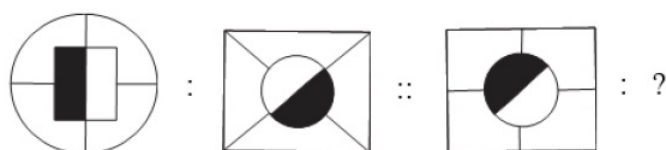
Conclusions:

- I. All students are players.
- II. Some athletes are students.

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

Q.18 The two figures on the left side of the sign '::' are related in a certain way. The same relationship holds for the second pair of figures on the right side of the sign '::', of which one is missing. Which of the following is the missing one?

Question ID : 5791
Chosen Option : 1



- Ans
- 1.

2.

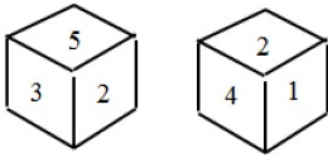


3.



4.

Q.19 Two views of a cube are shown below. Which number is opposite number 3?



Question ID : 5799

Chosen Option : 1

Ans 1.

2.

3.

4.

Q.20 A, B, C, D, E and F are standing in a line. C and E are not at the extreme ends. B is just to the left of F, and E is just to the right of D. There are two persons standing between C and D.

Who are at the extreme ends?

Ans 1. B and F

2. A and F

3. C and D

4. D and F

Question ID : 5805

Chosen Option : 4

Q.1 The Nagarjun sagar Dam is built across which of the following rivers?

Ans 1. Krishna

2. Narmada

3. Ganga

4. Cauvery

Question ID : 5821

Chosen Option : 1

Q.2 Which of the following measures can effect a temporary control of inflation?

Ans 1. Increasing the prices

2. Restraining the growth

3. Increasing the taxes

4. Reducing the prices

Question ID : 5818

Chosen Option : 4

Q.3 What is the minimum age for eligibility of a candidate for Presidents hip of India?

- Ans
- 1. 30 years
 - 2. 25 years
 - 3. 45 years
 - 4. 35 years

Question ID : 5815
Chosen Option : 4

Q.4 On which of the following is the Indian Economic System based?

- Ans
- 1. Mixed Economy
 - 2. Communist Economy
 - 3. Capitalist Economy
 - 4. Free Economy

Question ID : 5817
Chosen Option : 1

Q.5 Who did the most to make Buddhism a world religion?

- Ans
- 1. Gautam Buddha
 - 2. Kanishka
 - 3. Ashoka
 - 4. Chandragupta

Question ID : 5810
Chosen Option : 3

Q.6 Who advises the Centre on legal matters?

- Ans
- 1. President of India
 - 2. Attorney General of India
 - 3. Chief Justice of India
 - 4. Advocate General of India

Question ID : 5816
Chosen Option : 2

Q.7 Of the following planets, which is the farthest from the Sun?

- Ans
- 1. Venus
 - 2. Mars
 - 3. Neptune
 - 4. Jupiter

Question ID : 5826
Chosen Option : 3

Q.8 What is the length of a cricket pitch?

- Ans
- 1. 10 yards
 - 2. 20 yards
 - 3. 12 yards
 - 4. 22 yards

Question ID : 5824
Chosen Option : 4

Q.9 The "Buland Darwaza" at Fatehpur Sikri was built by Emperor Akbar to commemorate the conquest of which of the following kingdoms?

- Ans
- 1. Chittor
 - 2. Bengal
 - 3. Gujarat
 - 4. Ajmer

Question ID : 5809
Chosen Option : 3

Q.10 Through which of the following states does the Tropic of Cancer pass?

- Ans
- 1. Rajasthan
 - 2. Madhya Pradesh
 - 3. Andhra Pradesh

Question ID : 5820
Chosen Option : 2

4. Sikkim

Q.11 In which game does a player become 'Dummy'?

- Ans 1. Volley Ball
 2. Bridge
 3. Carrom
 4. Golf

Question ID : 5825
Chosen Option : 2

Q.12 In which of the following states is the Periyar Game Sanctuary located?

- Ans 1. Assam
 2. Kerala
 3. Andhra Pradesh
 4. Rajasthan

Question ID : 5823
Chosen Option : 2

Q.13 Which of the following was not a movement led by Mahatma Gandhi?

- Ans 1. Dandi March
 2. Home- Rule Movement
 3. Civil Disobedience Movement
 4. Quit India Movement

Question ID : 5812
Chosen Option : 2

Q.14 Which of the following Articles of Indian constitution empowers the High Court to issue writs for the enforcement of the Fundamental Rights?

- Ans 1. Article 326
 2. Article 230
 3. Article 256
 4. Article 226

Question ID : 5813
Chosen Answer : --

Q.15 Which schedule of Indian Constitution contains list of Official languages?

- Ans 1. Schedule 5
 2. Schedule 8
 3. Schedule 2
 4. Schedule 6

Question ID : 5814
Chosen Answer : --

Q.16 During which of the following does a solar eclipse take place?

- Ans 1. New Moon Day
 2. Full Moon Day
 3. Half Moon Day
 4. No fixed day

Question ID : 5819
Chosen Answer : --

Q.17 Which organ is associated with the production of insulin in human body?

- Ans 1. Pancreas
 2. Lungs
 3. Liver
 4. Thyroid glands

Question ID : 5827
Chosen Option : 3

Q.18 In which of the following states of India is iron mined in large quantities?

Question ID : 5822
Chosen Option : 3

- Ans 1. Rajasthan
 2. Bihar
 3. Orissa
 4. Madhya Pradesh

Q.19 In which year was the Non-Cooperation Movement launched in India?

Question ID : 5811

Chosen Option : 2

- Ans 1. 1905
 2. 1920
 3. 1934
 4. 1942

Q.20 Of which of the following bank's first Chinese branch was inaugurated by Prime Minister Narendra Modi in Shanghai on 16 May 2015?

Question ID : 5828

Chosen Option : 2

- Ans 1. HDFC Bank
 2. ICICI Bank
 3. Canara Bank
 4. Bank of Baroda

Comprehension:

प्रस्तुत अनुच्छेद को पढ़िए और पूछे गए प्रश्नों के सही उत्तर का चयन करें।

भारत में प्राचीन काल से ज्ञान को महत्त्व दिया गया है। यहाँ ज्ञान को मोक्ष का साधन माना गया है। भारत में ज्ञान की अपेक्षा विज्ञान कम सम्मानित रहा है, क्योंकि उसका संबंध भौतिक जीवन से है। हमारे यहाँ विज्ञान का व्यावहारिक रूप जन जीवन की आवश्यकताओं और समस्याओं से नहीं जुड़ पाया इसलिए उससे आम जनता को लाभ नहीं मिल पाया।

जैसे गंगाजल हमारे लिए पवित्र है, वह सब पापों को धोता है परन्तु भूखी जनता के काम तो वही गंगा जल आ सकता है जो खेतों की मिट्टी को सींचे या फिर ऊर्जा पैदा करने के काम आए।

देश के वैज्ञानिक यदि जन साधारण की समस्याओं की ओर आवश्यक ध्यान देते तो देश में कारीगरी और खेतीबाड़ी के दकियानूसी तरीकों का बोलबाला न रहता। जब तक विज्ञान को समग्र और समुचित रूप से प्रयोग में नहीं लाया जाता, तब तक जनता की गरीबी हटाने का अभियान कामयाब नहीं हो सकेगा, इसमें सन्देह नहीं।

SubQuestion No. :1

Q.1 "वैज्ञानिक" शब्द किन दो शब्दों से बना है?

Question ID : 5834

Chosen Option : 4

- Ans 1. विज्ञान + इक
 2. विज्ञा + निक
 3. विज्ञानि + क

4. वैज्ञान + इक

SubQuestion No. :2

Q.2 अनुच्छेद के अनुसार, यहाँ विज्ञान को महत्व इसलिए नहीं मिल पाया क्योंकि विज्ञान तत्कालीन समाज में:

Question ID : 5831

Chosen Option : 3

- Ans
- 1. मोक्ष से नहीं जुड़ा था
 - 2. ज्ञान से जुड़ा था
 - 3. जीवन भौतिकता प्रधान था
 - 4. जीवन में उसकी जरूरत नहीं थी

SubQuestion No. :3

Q.3 अनुच्छेद में गंगा जल की क्या उपयोगिता बताई गई है?

Question ID : 5833

Chosen Option : 3

- Ans
- 1. रोगों को नष्ट करने में
 - 2. स्थान को पवित्र करने में
 - 3. खेतों को सींचने में
 - 4. पापों को धोने में

SubQuestion No. :4

Q.4 विज्ञान की उपयोगिता तभी होगी जब वह

Question ID : 5832

Chosen Option : 4

- Ans
- 1. व्यावहारिक होगा
 - 2. विद्वानों को नेतृत्व शक्ति देगा
 - 3. प्रयोगों तक सीमित रहेगा
 - 4. आध्यात्म से जुड़ेगा

SubQuestion No. :5

Q.5 अनुच्छेद के अनुसार, भारत में ज्ञान को महत्व इसलिए दिया गया, क्योंकि उसका संबंध:

Question ID : 5830

Chosen Option : 2

- Ans
- 1. भौतिक जरूरतों से है।
 - 2. मोक्ष प्राप्ति से है।
 - 3. जीवन व्यवहार से है।
 - 4. आम जनता से है।

Q.6 निम्नलिखित में से, 'याद रखना' के लिए कौन सा मुहावरा उपयुक्त है?

Question ID : 5837

Chosen Option : 3

- Ans
- 1. गड़े मुर्दे उखाड़ना
 - 2. गांठ का पूरा होना

✓ 3. गांठ बाधना

✗ 4. गांठ खोलना

Q.7 नीचे लिखे शब्दों में से कौन-सा शब्द 'रात्रि' का पर्यायवाची नहीं है?

Ans ✗ 1. विभावरी

✗ 2. रजनी

✓ 3. निशापति

✗ 4. तामसी

Question ID : 5836

Chosen Option : 2

Q.8 निम्नलिखित कौन से शब्द की वर्तनी शुद्ध है?

Ans ✗ 1. अहिल्या

✓ 2. अहल्या

✗ 3. अहेल्या

✗ 4. अहील्या

Question ID : 5839

Chosen Option : 1

Q.9 कलिंग युद्ध में सम्राट अशोक की विजय हुई, उन्हें कभी _____ का मुँह नहीं देखना पड़ा।

Question ID : 5835

Chosen Option : 1

उक्त वाक्य में रिक्त स्थान की पूर्ति के लिए रेखांकित शब्द का विलोम क्या होगा?

Ans ✓ 1. पराजय

✗ 2. परास्त

✗ 3. पराभव

✗ 4. पराजित

Q.10 निम्नलिखित कौन से शब्द में अनुनासिकता है?

Question ID : 5838

Chosen Option : 2

Ans ✗ 1. कंचन

✗ 2. निंदा

✓ 3. नींद

✗ 4. पंडित