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सतीश धवन अंतरिक्ष केंद्र शार, श्रीहरिकोटा

भारतीय अंतरिक्ष अनुसंधान संगठन  
Indian Space Research Organisation



**SATISH DHAWAN SPACE CENTRE SHAR**  
Sriharikota

Participant ID	
Participant Name	
Test Center Name	
Test Date	14/02/2024
Test Time	12:30 PM - 2:00 PM
Subject	Technical Assistant Electrical Engineering Electrical Electronics Engineering

Section : Curriculum Based

Q.1 A Power chopper converts

- A. AC to DC
- B. DC to DC
- C. DC to AC
- D. AC to AC

Ans  A. A  
 B. B  
 C. C  
 D. D



Question ID : 4025571453

Option 1 ID : 4025575809

Option 2 ID : 4025575810

Option 3 ID : 4025575811

Option 4 ID : 4025575812

Status : Answered

Chosen Option : B

**Q.2** Advantage of using electronic devices for speed control of electric motor is

- A. Fast action
- B. Consumes less power
- C. Compact
- D. All of the above

**Ans**  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571456  
Option 1 ID : 4025575821  
Option 2 ID : 4025575822  
Option 3 ID : 4025575823  
Option 4 ID : 4025575824  
Status : Answered  
Chosen Option : D

**Q.3** Which is the material used for construction of core of Electromagnets?

- A. Hard magnetic materials
- B. Soft Magnetic materials
- C. Copper material
- D. None of the above

**Ans**  A. A  
 B. B  
 C. C  
 D. D



Question ID : 4025571502  
Option 1 ID : 4025576005  
Option 2 ID : 4025576006  
Option 3 ID : 4025576007  
Option 4 ID : 4025576008  
Status : Answered  
Chosen Option : B

**Q.4** The main function of which of the following parts of an VFD is to change a high DC voltage into a pulsed AC voltage?

- A. Inverter
- B. DC Link
- C. Rectifier
- D. RFI filter

**Ans**  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571459  
Option 1 ID : 4025575833  
Option 2 ID : 4025575834  
Option 3 ID : 4025575835  
Option 4 ID : 4025575836  
Status : Answered  
Chosen Option : A

**Q.5** A 3 phase, 4 wire system supplies power to a balanced star connected load. The Current in each phase is 10A. The current in the Neutral wire will be

- A. 10 A
- B. 30 A
- C. 40 A
- D. 0 A

**Ans**  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571481  
Option 1 ID : 4025575921  
Option 2 ID : 4025575922  
Option 3 ID : 4025575923  
Option 4 ID : 4025575924  
Status : Answered  
Chosen Option : D

Q.6

The unit of luminous flux is

- A) Lumen
- B) Candle power
- C) Lux
- D) Meter candle

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571463  
Option 1 ID : 4025575849  
Option 2 ID : 4025575850  
Option 3 ID : 4025575851  
Option 4 ID : 4025575852  
Status : Answered  
Chosen Option : A

Q.7

In an electronic ohmmeter, an op-amp is used for

- A. Summer
- B. Multiplier
- C. Buffer amplifier
- D. Integrator

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571468  
Option 1 ID : 4025575869  
Option 2 ID : 4025575870  
Option 3 ID : 4025575871  
Option 4 ID : 4025575872  
Status : Not Answered  
Chosen Option : --

**Q.8** Buck boost transformer is generally used in \_\_\_\_\_ system.

- A. HVAC
- B. Servo Controlled Voltage Stabilizers
- C. Sub-stations
- D. Railway traction

**Ans**  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571496

Option 1 ID : 4025575981

Option 2 ID : 4025575982

Option 3 ID : 4025575983

Option 4 ID : 4025575984

Status : Answered

Chosen Option : D

**Q.9** In a series RLC circuit at resonance, the magnitude of the voltage developed across the capacitor

- A. is always zero
- B. can never be greater than the input voltage
- C. can be greater than the input voltage, however, it is  $90^\circ$  out of phase with the input voltage
- D. can be greater than the input voltage, and is in phase with the input voltage

**Ans**  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571446

Option 1 ID : 4025575781

Option 2 ID : 4025575782

Option 3 ID : 4025575783

Option 4 ID : 4025575784

Status : Answered

Chosen Option : C

Q.10

Two dice are thrown simultaneously. The probability that at least one of them will have six facing up is

- A.  $1/36$
- B.  $1/3$
- C.  $25/36$
- D.  $11/36$

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571520  
Option 1 ID : 4025576077  
Option 2 ID : 4025576078  
Option 3 ID : 4025576079  
Option 4 ID : 4025576080  
Status : Answered  
Chosen Option : D

Q.11 Armature reaction with axis at  $90^\circ$  to the main field is called as \_\_\_\_\_

- A. Demagnetizing
- B. Cross-magnetizing
- C. Non-magnetizing
- D. None of the above

Ans  A. A  
 B. B  
 C. C  
 D. D



Question ID : 4025571471  
Option 1 ID : 4025575881  
Option 2 ID : 4025575882  
Option 3 ID : 4025575883  
Option 4 ID : 4025575884  
Status : Answered  
Chosen Option : B

**Q.12** If the surge impedance of a 20 km long underground cable is 20 ohms, then for 10 km length of the surge impedance of the cable will be:

- A. 10 ohm
- B. 200 ohm
- C. 400 ohm
- D. 20 ohm

**Ans**  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571510

Option 1 ID : 4025576037

Option 2 ID : 4025576038

Option 3 ID : 4025576039

Option 4 ID : 4025576040

Status : Answered

Chosen Option : D

**Q.13** The microprocessor contains ROM chip which contains

- A. control function
- B. arithmetic functions
- C. instructions to execute data
- D. memory functions

**Ans**  A. A  
 B. B  
 C. C  
 D. D



Question ID : 4025571441

Option 1 ID : 4025575761

Option 2 ID : 4025575762

Option 3 ID : 4025575763

Option 4 ID : 4025575764

Status : Answered

Chosen Option : C



Q.14

The diac is a

- A. Transistor
- B. Unidirectional device
- C. Three layer device
- D. Bidirectional device

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571442  
Option 1 ID : 4025575765  
Option 2 ID : 4025575766  
Option 3 ID : 4025575767  
Option 4 ID : 4025575768  
Status : Answered  
Chosen Option : D

Q.15

Transmission line regulation is arrived by:

- A.  $(\text{Sending end voltage} - \text{Receiving end voltage}) \div \text{Receiving end voltage}$
- B.  $(\text{Receiving end voltage} - \text{Generation voltage}) \div \text{Generation voltage}$
- C.  $(\text{Receiving end voltage} - \text{Sending end voltage}) \div \text{Sending end voltage}$
- D. None of the above

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571500  
Option 1 ID : 4025575997  
Option 2 ID : 4025575998  
Option 3 ID : 4025575999  
Option 4 ID : 4025576000  
Status : Answered  
Chosen Option : A

Q.16

The series motor should not be started at no load because

- A) Armature current is very high
- B) Armature current is very low
- C) Speed is very high
- D) Speed is very low

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571454  
Option 1 ID : 4025575813  
Option 2 ID : 4025575814  
Option 3 ID : 4025575815  
Option 4 ID : 4025575816  
Status : Answered  
Chosen Option : C

Q.17

A body moves with a constant speed along a curved path. Its acceleration

- A. is zero
- B. is parallel to its velocity
- C. can make any arbitrary angle with its velocity
- D. is perpendicular to its velocity

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571511  
Option 1 ID : 4025576041  
Option 2 ID : 4025576042  
Option 3 ID : 4025576043  
Option 4 ID : 4025576044  
Status : Answered  
Chosen Option : A

Q.18 Main components in an electronic fan regulator are \_\_\_\_\_

- A. High wattage resistance
- B. IGBT
- C. Triac and diode
- D. Transistor and diodes

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571504

Option 1 ID : 4025576013

Option 2 ID : 4025576014

Option 3 ID : 4025576015

Option 4 ID : 4025576016

Status : Answered

Chosen Option : D

Q.19 Maximum demand on a power station is less if

- A. Diversity factor is less
- B. Load factor is more
- C. Load factor is less
- D. Diversity factor is more

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571491

Option 1 ID : 4025575961

Option 2 ID : 4025575962

Option 3 ID : 4025575963

Option 4 ID : 4025575964

Status : Answered

Chosen Option : B

Q.20 The transformer core shall have

- A. High Resistance
- B. High Inductance
- C. Low Resistance
- D. High Permeability

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571473  
Option 1 ID : 4025575889  
Option 2 ID : 4025575890  
Option 3 ID : 4025575891  
Option 4 ID : 4025575892  
Status : Answered  
Chosen Option : D

Q.21 What is the purpose of providing compensating winding in DC machine?

- A. To neutralize armature reaction
- B. To increase the armature reaction
- C. To increase the speed
- D. To reduce the speed

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571472  
Option 1 ID : 4025575885  
Option 2 ID : 4025575886  
Option 3 ID : 4025575887  
Option 4 ID : 4025575888  
Status : Answered  
Chosen Option : A

Q.22 Which of the following instrument is used to measure alternating current?

- A. Moving Iron voltmeter
- B. Permanent magnet type ammeter
- C. Induction type voltmeter
- D. Moving Iron Ammeter

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571465  
Option 1 ID : 4025575857  
Option 2 ID : 4025575858  
Option 3 ID : 4025575859  
Option 4 ID : 4025575860  
Status : Answered  
Chosen Option : D

Q.23 In a series R-L-C circuit, the Maximum voltage across the capacitor occurs at a frequency

- A. Double the resonant frequency
- B. Equal to resonant frequency
- C. Square root times the resonant frequency
- D. Below the resonant frequency

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571486  
Option 1 ID : 4025575941  
Option 2 ID : 4025575942  
Option 3 ID : 4025575943  
Option 4 ID : 4025575944  
Status : Answered  
Chosen Option : D

Q.24

A steam power generating station normally works on \_\_\_\_\_ cycle with modifications to have heat economy and greater efficiency

- A. Carnot
- B. Brayton
- C. Rankine
- D. Otto

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571493  
Option 1 ID : 4025575969  
Option 2 ID : 4025575970  
Option 3 ID : 4025575971  
Option 4 ID : 4025575972  
Status : Answered  
Chosen Option : C

Q.25

What will happen if the voltmeter is connected like an ammeter in series to the load?

- A) The measurement will be too high
- B) There will be no current in the circuit
- C) The meter will burn out
- D) High current will flow

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571455  
Option 1 ID : 4025575817  
Option 2 ID : 4025575818  
Option 3 ID : 4025575819  
Option 4 ID : 4025575820  
Status : Answered  
Chosen Option : B

Q.26 \_\_\_\_\_ is the safe let through value of electric current through human body.

- A. more than 1 ampere
- B. less than 30 milli ampere
- C. 230 ampere
- D. 300 milli ampere

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571494

Option 1 ID : 4025575973

Option 2 ID : 4025575974

Option 3 ID : 4025575975

Option 4 ID : 4025575976

Status : Answered

Chosen Option : B

Q.27 The dielectric loss of a capacitor can be measured by

- A. Wein bridge
- B. Owen bridge
- C. Schering bridge
- D. Maxwell bridge

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571469

Option 1 ID : 4025575873

Option 2 ID : 4025575874

Option 3 ID : 4025575875

Option 4 ID : 4025575876

Status : Answered

Chosen Option : C

**Q.28** A synchronous generator is running over excited with excitation emf of 1.2 p.u. The synchronous reactance is 0.8 p.u. The machine is delivering a synchronous power of 0.9 p.u to the busbar. If the prime-mover input is increased by 7.5%, then the percentage change in reactive power is

- A. -7.5%
- B. -3.5%
- C. -5.63%
- D. 7.5%

**Ans**  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571480

Option 1 ID : 4025575917

Option 2 ID : 4025575918

Option 3 ID : 4025575919

Option 4 ID : 4025575920

Status : Not Answered

Chosen Option : --

**Q.29** A planet of solar system has mass four times and diameter twice than that of earth. The value of 'g' on this planet is

- A.  $4.9\text{m/s}^2$
- B.  $9.8\text{m/s}^2$
- C.  $19.6\text{m/s}^2$
- D.  $39.2\text{m/s}^2$

**Ans**  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571519

Option 1 ID : 4025576073

Option 2 ID : 4025576074

Option 3 ID : 4025576075

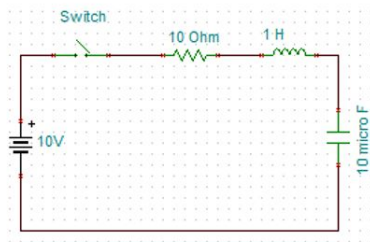
Option 4 ID : 4025576076

Status : Answered

Chosen Option : B



Q.30 Initially the circuit shown in the given figure was relaxed. If the switch is closed at  $t=0$ , the values of  $i(0_+)$ ,  $\frac{di}{dt}(0_+)$  and  $\frac{d^2i}{dt^2}(0_+)$  will be respectively be



- A. 0, 10 and -100
- B. 0, 10 and 100
- C. 10, 100 and 10
- D. 100, 0 and 10

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571448  
 Option 1 ID : 4025575789  
 Option 2 ID : 4025575790  
 Option 3 ID : 4025575791  
 Option 4 ID : 4025575792  
 Status : Not Answered  
 Chosen Option : --

Q.31 Wein bridge is used for measurement of

- A. Resistance
- B. Capacitance
- C. Frequency
- D. Inductance

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571464  
 Option 1 ID : 4025575853  
 Option 2 ID : 4025575854  
 Option 3 ID : 4025575855  
 Option 4 ID : 4025575856  
 Status : Answered  
 Chosen Option : C

**Q.32** To measure a signal of 10 mV at 75 Hz, which one of the following instruments can be used

- A. Moving coil voltmeter
- B. Cathode ray oscilloscope
- C. Moving iron voltmeter
- D. Lux meter

**Ans**  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571466  
Option 1 ID : 4025575861  
Option 2 ID : 4025575862  
Option 3 ID : 4025575863  
Option 4 ID : 4025575864  
Status : Answered  
Chosen Option : C

**Q.33** If a counter having 10 flip-flops is initially at '0', what count will, if hold after 2060 pulses?

- A. 000 000 1100
- B. 000 001 1100
- C. 000 001 1000
- D. 000 000 1110

**Ans**  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571450  
Option 1 ID : 4025575797  
Option 2 ID : 4025575798  
Option 3 ID : 4025575799  
Option 4 ID : 4025575800  
Status : Not Answered  
Chosen Option : --

**Q.34** Materials which have small area of Hysteresis loop are suitable for making

- A. Electromagnets
- B. Permanent magnets
- C. Transformer Core
- D. None of the above

**Ans**  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571501  
Option 1 ID : 4025576001  
Option 2 ID : 4025576002  
Option 3 ID : 4025576003  
Option 4 ID : 4025576004  
Status : Answered  
Chosen Option : A

**Q.35** Which of the following are used to reduce short circuit fault currents

- A. Reactors
- B. Capacitors
- C. Resistors
- D. Combination of all of (A), (B) & (C)

**Ans**  A. A  
 B. B  
 C. C  
 D. D



Question ID : 4025571487  
Option 1 ID : 4025575945  
Option 2 ID : 4025575946  
Option 3 ID : 4025575947  
Option 4 ID : 4025575948  
Status : Answered  
Chosen Option : A

Q.36

A transformer is working at its maximum efficiency, its iron loss is 500 W, its copper loss will be

- A) 250 W
- B) 300 W
- C) 400 W
- D) 500 W

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571452

Option 1 ID : 4025575805

Option 2 ID : 4025575806

Option 3 ID : 4025575807

Option 4 ID : 4025575808

Status : Answered

Chosen Option : D

Q.37

Which of the following loads will have highest harmonics when switched ON?

- A. 500 W, 230 V, 50 Hz incandescent lamp
- B. 1500 W, 230 V, 50 Hz Geyser
- C. 60 W, 230 V, 50 Hz desktop PC
- D. 50 W, 10 pole, 230 V, 50 Hz, Ceiling fan

Ans  A. A  
 B. B  
 C. C  
 D. D



Question ID : 4025571506

Option 1 ID : 4025576021

Option 2 ID : 4025576022

Option 3 ID : 4025576023

Option 4 ID : 4025576024

Status : Answered

Chosen Option : D

**Q.38** In order to have the impulse response of a control system approaching zero with time tending to infinity,

- A. the poles of the system must have positive real parts
- B. the poles of the system must lie on left half side of 's' plane
- C. the zeros of the system must lie on left half side of 's' plane
- D. none of the above

**Ans**  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571443

Option 1 ID : 4025575769

Option 2 ID : 4025575770

Option 3 ID : 4025575771

Option 4 ID : 4025575772

Status : Answered

Chosen Option : B

**Q.39** What is the main constituent of natural gas?

- A. Methane
- B. Ethane
- C. Butane
- D. Hydrogen

**Ans**  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571512

Option 1 ID : 4025576045

Option 2 ID : 4025576046

Option 3 ID : 4025576047

Option 4 ID : 4025576048

Status : Answered

Chosen Option : A

Q.40 When the phenomenon of cogging happens in induction motor?

- A. Rotor slots = stator slots
- B. Rotor slots =  $\frac{1}{2}$  Stator slots
- C. Stator slots =  $\frac{1}{2}$  Rotor slots
- D. Rotor slots = 2 x stator slots

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571474

Option 1 ID : 4025575893

Option 2 ID : 4025575894

Option 3 ID : 4025575895

Option 4 ID : 4025575896

Status : Answered

Chosen Option : A

Q.41 Write the output expression of a logic circuit with 4 inputs A, B, C, D that will produce logic high only whenever two adjacent input variable logic high. Treat A and D are also adjacent.

- A.  $F = AC + AD + AB + BD$
- B.  $F = AC + BD + \bar{A}(C + D)$
- C.  $F = BC + AD + CD + AB$
- D.  $F = AB + AD + BC + BD$

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571490

Option 1 ID : 4025575957

Option 2 ID : 4025575958

Option 3 ID : 4025575959

Option 4 ID : 4025575960

Status : Not Answered

Chosen Option : --

Q.42 The field of an induction motor rotor rotates relatively to the stator at

- A. Slip speed
- B. Synchronous speed
- C. Rotor Speed
- D. Very low speed

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571476  
Option 1 ID : 4025575901  
Option 2 ID : 4025575902  
Option 3 ID : 4025575903  
Option 4 ID : 4025575904  
Status : Answered  
Chosen Option : B

Q.43 A power IGBT has three terminals called

- A. Collector, emitter and gate
- B. Drain, source and base
- C. Drain, source and gate
- D. Collector, emitter and drain

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571458  
Option 1 ID : 4025575829  
Option 2 ID : 4025575830  
Option 3 ID : 4025575831  
Option 4 ID : 4025575832  
Status : Answered  
Chosen Option : C



**Q.44** The distance between the starts of two consecutive coils measured in terms of coil sides is called as :

- A. Commutator Pitch
- B. Front Pitch
- C. Winding Pitch
- D. Back Pitch

**Ans**  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571503  
Option 1 ID : 4025576009  
Option 2 ID : 4025576010  
Option 3 ID : 4025576011  
Option 4 ID : 4025576012  
Status : Answered  
Chosen Option : C

**Q.45** Various power system faults in increasing order of severity are \_\_\_\_\_

- A. LG, LL, LLG, LLLG
- B. LLLG, LLG, LL, LG
- C. LL, LG, LLLG, LLG
- D. LLG, LLLG, LL, LG

**Ans**  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571488  
Option 1 ID : 4025575949  
Option 2 ID : 4025575950  
Option 3 ID : 4025575951  
Option 4 ID : 4025575952  
Status : Answered  
Chosen Option : B



Q.46 The effect of harmonics in a power distribution system is \_\_\_\_\_

- A. Low Power factor
- B. Higher losses
- C. Lower eddy current loss
- D. High efficiency

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571505  
Option 1 ID : 4025576017  
Option 2 ID : 4025576018  
Option 3 ID : 4025576019  
Option 4 ID : 4025576020  
Status : Answered  
Chosen Option : B

Q.47 The current  $i(t)$  through a  $10\Omega$  resistor in series with an inductance, is given by

$$i(t) = 3 + 4 \sin(100.t+45^\circ) + 4 \sin(300.t+60^\circ) \text{ Amperes}$$

The RMS value of the current and power dissipated in the circuit are

- A.  $\sqrt{41}$ A, 410W respectively
- B.  $\sqrt{35}$ A, 350W respectively
- C. 5A, 250W respectively
- D. 11A, 1290W respectively

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571445  
Option 1 ID : 4025575777  
Option 2 ID : 4025575778  
Option 3 ID : 4025575779  
Option 4 ID : 4025575780  
Status : Answered  
Chosen Option : C

Q.48 What is the KVA load on the distribution transformer if the secondary of the 100/5A CT connected in primary of 11 KV/433 V is 4 Amps?

- A. 1905 KVA
- B. 1000 KVA
- C. 1524 KVA
- D. 1143 KVA

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571479

Option 1 ID : 4025575913

Option 2 ID : 4025575914

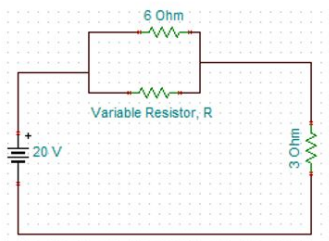
Option 3 ID : 4025575915

Option 4 ID : 4025575916

Status : Not Answered

Chosen Option : --

Q.49 The values of the resistor R in the circuit shown in the figure is varied in such a manner that the power dissipated in  $3\Omega$  resistor is maximum. Under this condition, the value of R will be



- A.  $3\Omega$
- B.  $9\Omega$
- C.  $12\Omega$
- D.  $6\Omega$

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571449

Option 1 ID : 4025575793

Option 2 ID : 4025575794

Option 3 ID : 4025575795

Option 4 ID : 4025575796

Status : Answered

Chosen Option : D

Q.50

For a sinusoidal waveform, form factor is

- A) 1.11
- B) 2.12
- C) 3.13
- D) 4.14

Ans  A. A

B. B

C. C

D. D

Question ID : 4025571451

Option 1 ID : 4025575801

Option 2 ID : 4025575802

Option 3 ID : 4025575803

Option 4 ID : 4025575804

Status : Answered

Chosen Option : A

Q.51 The address bus width of a memory of size 1024x8 bits is

- A. 10 bits
- B. 13 bits
- C. 8 bits
- D. 18 bits

Ans  A. A

B. B

C. C

D. D

Question ID : 4025571444

Option 1 ID : 4025575773

Option 2 ID : 4025575774

Option 3 ID : 4025575775

Option 4 ID : 4025575776

Status : Not Answered

Chosen Option : --

**Q.52** Floating neutral condition in a 3-phase + N distribution system in India will lead into \_\_\_\_\_ situation

- A. Unequal line to line voltages
- B. Large neutral current
- C. Unbalanced load currents in three phases
- D. Unequal phase to neutral voltage

**Ans**  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571498  
Option 1 ID : 4025575989  
Option 2 ID : 4025575990  
Option 3 ID : 4025575991  
Option 4 ID : 4025575992  
Status : Answered  
Chosen Option : D

**Q.53** Which of the following is not a correct method to reduce the effects of armature reaction?

- A. Increasing Reluctance of the pole tips
- B. Use of Inter-poles
- C. Decreasing Reluctance of pole tips
- D. Increasing length of airgap at the pole tips

**Ans**  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571508  
Option 1 ID : 4025576029  
Option 2 ID : 4025576030  
Option 3 ID : 4025576031  
Option 4 ID : 4025576032  
Status : Answered  
Chosen Option : A

Q.54 One of the following can act as inverse transducer

- A. Electrical resistance potentiometer
- B. LVDT
- C. Capacitive transducer
- D. Piezo electric crystals

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571470

Option 1 ID : 4025575877

Option 2 ID : 4025575878

Option 3 ID : 4025575879

Option 4 ID : 4025575880

Status : Answered

Chosen Option : A

Q.55 There are no transients in pure resistance circuits because they

- A. Offer high resistance
- B. Obey ohms law
- C. Have no stored energy
- D. Are linear circuits

Ans  A. A  
 B. B  
 C. C  
 D. D



Question ID : 4025571483

Option 1 ID : 4025575929

Option 2 ID : 4025575930

Option 3 ID : 4025575931

Option 4 ID : 4025575932

Status : Answered

Chosen Option : C

**Q.56** A bridge circuit is operating at a frequency of 2kHz. The suitable detector for obtaining balance point for null condition for the bridge can be

- A. Vibration galvanometer
- B. Head phones and tunable amplifiers
- C. Vibration galvanometer and tunable amplifiers
- D. None of the above

**Ans**  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571475  
Option 1 ID : 4025575897  
Option 2 ID : 4025575898  
Option 3 ID : 4025575899  
Option 4 ID : 4025575900  
Status : Answered  
Chosen Option : B

**Q.57** Among the following, which is not directly related electrical insulation property?

- A. Voltage Resistivity (VR)
- B. Surface Resistivity (SR)
- C. Abrasion Resistance (AR)
- D. Insulation Resistance (IR)

**Ans**  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571495  
Option 1 ID : 4025575977  
Option 2 ID : 4025575978  
Option 3 ID : 4025575979  
Option 4 ID : 4025575980  
Status : Answered  
Chosen Option : B

Q.58

The inverse of the  $2 \times 2$  matrix  $\begin{bmatrix} 1 & 2 \\ 5 & 7 \end{bmatrix}$  is

A.  $\frac{1}{3} \cdot \begin{bmatrix} -7 & 2 \\ 5 & -1 \end{bmatrix}$

B.  $\frac{1}{3} \cdot \begin{bmatrix} 7 & 2 \\ 5 & 1 \end{bmatrix}$

C.  $\frac{1}{3} \cdot \begin{bmatrix} 7 & -2 \\ -5 & 1 \end{bmatrix}$

D.  $\frac{1}{3} \cdot \begin{bmatrix} -7 & -2 \\ -5 & -1 \end{bmatrix}$

Ans  A. A

B. B

C. C

D. D

Question ID : 4025571514

Option 1 ID : 4025576053

Option 2 ID : 4025576054

Option 3 ID : 4025576055

Option 4 ID : 4025576056

Status : Answered

Chosen Option : A

Q.59 The arcing ground phenomenon is related \_\_\_\_\_ electrical system.

- A. Underground long HV AC transmission
- B. Loose connection of Phase at Outdoor transformer's terminal
- C. Loose connection at Earthing terminal
- D. Arcing due to lightning

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571492  
Option 1 ID : 4025575965  
Option 2 ID : 4025575966  
Option 3 ID : 4025575967  
Option 4 ID : 4025575968  
Status : Answered  
Chosen Option : C

Q.60 An a.c Source of 200 V r.m.s supplies an active power of 600 w and reactive power of 800 VAR to a load. The r.m.s current and the power factor of the load respectively are

- A. 5 A and 0.60
- B. 5 A and 0.75
- C. 4 A and 0.60
- D. 4 A and 0.75

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571489  
Option 1 ID : 4025575953  
Option 2 ID : 4025575954  
Option 3 ID : 4025575955  
Option 4 ID : 4025575956  
Status : Answered  
Chosen Option : A





Q.61

Hydro Electric generators are basically

- A. High speed alternator of smooth cylindrical type
- B. Low speed alternator of Salient pole type
- C. Low speed alternator of smooth cylindrical type
- D. High speed alternator of Salient pole type

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571497  
Option 1 ID : 4025575985  
Option 2 ID : 4025575986  
Option 3 ID : 4025575987  
Option 4 ID : 4025575988  
Status : Answered  
Chosen Option : B

Q.62 The “Double conclave lens” phenomena in a CRO is observed between

- A. Control grid and pre accelerating anode
- B. Focussing anode and pre accelerating anode
- C. Pre accelerating anode and focussing anode
- D. Pre accelerating anode and accelerating anode.

Ans  A. A  
 B. B  
 C. C  
 D. D



Question ID : 4025571485  
Option 1 ID : 4025575937  
Option 2 ID : 4025575938  
Option 3 ID : 4025575939  
Option 4 ID : 4025575940  
Status : Answered  
Chosen Option : A

Q.63

Which among the following is a chemical change ?

- A. A wet towel dries in the sun
- B. Lemon juice added to tea causing its colour to change
- C. Hot air rises over a radiator
- D. Coffee is brewed by passing through ground coffee

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571513  
Option 1 ID : 4025576049  
Option 2 ID : 4025576050  
Option 3 ID : 4025576051  
Option 4 ID : 4025576052  
Status : Answered  
Chosen Option : B

Q.64 A 10 milli henry inductor carries a sinusoidal current input of 1 A r.m.s at a frequency of 50 Hz. The average power dissipated by the inductor is

- A. 0 watts
- B. 0.25watts
- C. 0.5 watts
- D. 1.0 watts

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571482  
Option 1 ID : 4025575925  
Option 2 ID : 4025575926  
Option 3 ID : 4025575927  
Option 4 ID : 4025575928  
Status : Answered  
Chosen Option : A

Q.65

Which of the following is not present in cement ?

- A. Clay
- B. Alumina
- C. Alum
- D. Gypsum

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571515  
Option 1 ID : 4025576057  
Option 2 ID : 4025576058  
Option 3 ID : 4025576059  
Option 4 ID : 4025576060  
Status : Answered  
Chosen Option : B

Q.66

Longer coasting period for train results in

- A. Higher acceleration
- B. Higher retardation
- C. Lower specific energy consumption
- D. Higher schedule speed

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571457  
Option 1 ID : 4025575825  
Option 2 ID : 4025575826  
Option 3 ID : 4025575827  
Option 4 ID : 4025575828  
Status : Answered  
Chosen Option : C

Q.67 A sinusoidal waveform is mathematically represented by

- A. an even function
- B. an odd function
- C. a function that is neither even nor odd
- D. none of the above

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571517  
Option 1 ID : 4025576065  
Option 2 ID : 4025576066  
Option 3 ID : 4025576067  
Option 4 ID : 4025576068  
Status : Answered  
Chosen Option : B

Q.68 The eddy current loss in an ac electric motor is 100 watts at 50 Hz. Its loss at 100 Hz will be

- A. 25 Watts
- B. 400 Watts
- C. 100 Watts
- D. 59 Watts

Ans  A. A  
 B. B  
 C. C  
 D. D



Question ID : 4025571507  
Option 1 ID : 4025576025  
Option 2 ID : 4025576026  
Option 3 ID : 4025576027  
Option 4 ID : 4025576028  
Status : Answered  
Chosen Option : C

Q.69 Plug setting of a relay can be altered by varying

- A. Air gap of magnetic path
- B. Adjustable back up stop
- C. Number of ampere turns
- D. None of the above

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571484  
Option 1 ID : 4025575933  
Option 2 ID : 4025575934  
Option 3 ID : 4025575935  
Option 4 ID : 4025575936  
Status : Answered  
Chosen Option : C

Q.70

Inverter converts

- A) AC to AC
- B) AC to DC
- C) DC to AC
- D) DC to DC

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571462  
Option 1 ID : 4025575845  
Option 2 ID : 4025575846  
Option 3 ID : 4025575847  
Option 4 ID : 4025575848  
Status : Answered  
Chosen Option : C

Q.71 How many flipflops are required to construct MOD-31 counter?

- A. 4
- B. 2
- C. 3
- D. 5

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571477

Option 1 ID : 4025575905

Option 2 ID : 4025575906

Option 3 ID : 4025575907

Option 4 ID : 4025575908

Status : Not Answered

Chosen Option : --

Q.72 The inverse Laplace transform of  $\frac{1}{(s^2+s)}$  is

- A.  $1 + e^t$
- B.  $1 - e^t$
- C.  $1 - e^{-t}$
- D.  $1 + e^{-t}$

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571518

Option 1 ID : 4025576069

Option 2 ID : 4025576070

Option 3 ID : 4025576071

Option 4 ID : 4025576072

Status : Answered

Chosen Option : B

**Q.73** When two different capacities of synchronous generators operate in parallel and supply to given load conditions and both have same governor droops, the following statement will be correct

- A. The higher rated generator will share lesser load and lower rated generator will share higher load
- B. The higher rated generator will share more load and lower rated generator will share lesser load
- C. Both higher rated and lower rated generator will share equal load
- D. None of the above

**Ans**  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571499  
Option 1 ID : 4025575993  
Option 2 ID : 4025575994  
Option 3 ID : 4025575995  
Option 4 ID : 4025575996  
Status : Answered  
Chosen Option : B

**Q.74** In a practical clamping circuit, a resistor 'R' is placed across the diode. This is

- A. to provide charging or discharging path for the capacitor as need arises
- B. to neutralise the effect of diode's forward resistance
- C. an indispensable addition
- D. none of the above

**Ans**  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571447  
Option 1 ID : 4025575785  
Option 2 ID : 4025575786  
Option 3 ID : 4025575787  
Option 4 ID : 4025575788  
Status : Answered  
Chosen Option : A

Q.75 The meter constant of energy meter is given by

- A. Rev/kW
- B. Rev/kWh
- C. Rev/W
- D. Rev/kWs

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571467

Option 1 ID : 4025575865

Option 2 ID : 4025575866

Option 3 ID : 4025575867

Option 4 ID : 4025575868

Status : Answered

Chosen Option : B

Q.76 The Geo Synchronous Solar Power station has the concept of :

- A. Large array of solar cells placed in Equator region
- B. Large array of solar cells placed in Geo Centre of Earth
- C. Large array of solar cells synchronised in Power station
- D. Large array of solar cells placed in Space Orbit

Ans  A. A  
 B. B  
 C. C  
 D. D



Question ID : 4025571509

Option 1 ID : 4025576033

Option 2 ID : 4025576034

Option 3 ID : 4025576035

Option 4 ID : 4025576036

Status : Answered

Chosen Option : C



Q.77 For a synchronous motor, inverted 'V' curve is the relation between

- A. Field Current and Power factor
- B. Field current and armature current
- C. Armature current and Power factor
- D. None of the above

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571478  
Option 1 ID : 4025575909  
Option 2 ID : 4025575910  
Option 3 ID : 4025575911  
Option 4 ID : 4025575912  
Status : Answered  
Chosen Option : A

Q.78 The scale of voltmeter is uniform. Its type is

- A. Moving Iron
- B. Induction
- C. Moving coil permanent magnet
- D. All of the above

Ans  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571461  
Option 1 ID : 4025575841  
Option 2 ID : 4025575842  
Option 3 ID : 4025575843  
Option 4 ID : 4025575844  
Status : Answered  
Chosen Option : C

**Q.79** Let A and B be real symmetric matrices of size  $n \times n$ . Then which one of the following is true?

- A.  $A.A^T = I$
- B.  $A = A^{-1}$
- C.  $A.B = B.A$
- D.  $(A.B)^T = B.A$

**Ans**  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571516  
Option 1 ID : 4025576061  
Option 2 ID : 4025576062  
Option 3 ID : 4025576063  
Option 4 ID : 4025576064  
Status : Answered  
Chosen Option : A

**Q.80** In a three-phase half wave diode rectifier, if  $V_m$  is the maximum value per phase voltage then each diode is subjected to peak inverse voltage of

- A.  $V_m$
- B.  $\sqrt{3}V_m$
- C.  $2V_m$
- D.  $3V_m$

**Ans**  A. A  
 B. B  
 C. C  
 D. D

Question ID : 4025571460  
Option 1 ID : 4025575837  
Option 2 ID : 4025575838  
Option 3 ID : 4025575839  
Option 4 ID : 4025575840  
Status : Answered  
Chosen Option : A