PROVISIONAL ANSWER KEY

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Question1:-'Our body comes in contact with electric current it causes an Electric shock'.
Which effect of electric current is related to this statement ?

A:-Chemical effect
B:-Ray's effect
C:-Physical effect
D:-Heating effect
Correct Answer:- Option-C

Question2:-In which class of insulation cotton, silk and paper are belongs to ?

A:-Y
B:-A
C:-F
D:-H
Correct Answer:- Option-A

Question3:-Among the following statement which one is true ?

A:-The value of Potential Difference (PD) will be slightly greater than Electro Motive Force (EMF)
B:-The value of Potential Difference (PD) is equal to Electro Motive Force (EMF)
C:-The value of Potential Difference (PD) will be slightly less than Electro Motive Force (EMF)
D:-The value of Potential Difference (PD) is very higher than Electro Motive Force (EMF)
Correct Answer:- Option-C

Question4:-Why we use the flux in the soldering process ?

A:-as bonding agent
B:-dissolve oxides on the surface of conductor
C:-highly hygroscopic
D:-highly corrosive
Correct Answer:- Option-B

Question5:-Which of the following statement is correct ?

A:-In a conductor number of valance electrons is eight.
B:-In a conductor seven number of incomplete valance electrons in outer most shell.
C:-In a conductor contains incomplete valance electrons in the order of five, six or seven in the outer most shell.
D:-In a conductor contains incomplete valance electrons in the order of one, two or three in the outer most shell.
Correct Answer:- Option-D

Question6:-Choose the correct property of the conductor from the following.

A:-low specific resistance
B:-low conductivity
C:-negative temperature coefficient of resistance
D:-cannot easily joined
Correct Answer:- Option-A

Question7:-How many sections are included int he part-1 of the National Electrical Code (NEC) 2011 ?

A:-10
B:-15
C:-8
D:-20
Correct Answer:- Option-D

Question8:-Weather proof cables are used for

A:-welding cable
B:-service connection
C:-batten wiring
D:-lead sheathed wiring
Correct Answer:- Option-B

Question9:-Which one of the following is not a property of insulator ?

A:-high dielectric strength

B:-resistance to temperature

C:-flexibility and mechanical strength

D:-low resistivity

Correct Answer:- Option-D

Question10:-What is the voltage grade of the paper insulated lead covered, single core un armoured cable ?

A:-650 V

B:-440 V

C:-1.1 KV

D:-11 KV

Correct Answer:- Option-C

Question11:-Select the term, represents the technique used to control the corrosion of a metal surface by making it as the cathode of an electro chemical cell.

A:-Electroplating

B:-Cathode Protection (CP)

C:-Electro Chemical Equavalent (ECE)

D:-Ionization

Correct Answer:- Option-B

Question12:-According to Faraday's law of electrolysis, the mass of substance liberated or deposited at any electrode during electrolysis is

A:-Proportional to Electro Chemical Equalent

B:-Proportional to the volume of electrolyte

C:-Proportional to quantity of electricity passed through the electrolyte

D:-Proportional to the density of electrolyte

Correct Answer:- Option-C

Question13:-What is the value of Electro Chemical Equivalent (ECE) of Silver in mg/c (milligram per coulomb) ?

A:-0.18

B:-1.07

C:-2.07

D:-1.118

Correct Answer:- Option-D

Question14:-Choose the rechargeable cell from the following.

A:-Carbon-Zinc cell

B:-Nickel-Iron cell

C:-Mercury cell

D:-Lithium cell

Correct Answer:- Option-B

Question15:-Which type of positive plate inside the lead acid battery is made by pure lead at the beginning and charge to lead peroxide by the process of repeated charging and discharging ?

A:-Faure plate

B:-Plante plate

C:-Both 1 and 2

D:-Neither 1 nor 2

Correct Answer:- Option-B

Question16:-What are the two types of efficiency considered in a battery ?

A:-Ampere efficiency and Watt efficiency

B:-Ampere-hour efficiency and all day efficiency

C:-All day efficiency and Watt-hour efficiency

D:-Ampere-hour efficiency and Watt-hour efficiency

Correct Answer:- Option-D

Question17:-Which of the following inspection is not done before charging battery ?

A:-Weight of the electrolyte

B:-Specific gravity of the electrolyte

C:-Voltage of the each cell of the battery

D:-Ampere-hour capacity of each cell

Correct Answer:- Option-A

Question18:-What type of charging method is used if the available supply is high voltage DC 220 V, 110 V etc. ?

A:-Constant potential method

B:-Rectifier method

C:-Constant current method
D:-Trickle charging method
Correct Answer:- Option-C

Question19:-Which one of the following is not a defect of Lead Acid Battery ?
A:-hard sulphation
B:-buckling of plates
C:-partial short
D:-polarization
Correct Answer:- Option-D

Question20:-What is the main difference between Nickel-Iron cell and Nickel-Cadmium cell ?
A:-Type of negative plates
B:-Type of positive plates
C:-Construction
D:-Type of separators
Correct Answer:- Option-A

Question21:-Choose the 'Term' that indicate the maximum value of potential difference between a point on the ground and a point.
A:-Step potential
B:-Leakage potential
C:-Touch potential
D:-Potential difference
Correct Answer:- Option-C

Question22:-Where we use system earthing method in the following ?
A:-Domestic appliances
B:-Electric motors
C:-Tube light
D:-Generating station
Correct Answer:- Option-D

Question23:-Among the following, which one is not related to pipe earthing ?
A:-GI pipe
B:-Copper plate
C:-Wire mesh
D:-Funnel
Correct Answer:- Option-B

Question24:-What is the reason for pouring water in the earth pit at repeated intervals ?
A:-for lower earth resistance
B:-to remove the soil from earth electrode
C:-to maintain negative potential
D:-to improve corrosion of earth electrode
Correct Answer:- Option-A

Question25:-Select the standard (BIS - from the year 1991) specification of a pug socket connected in AC ?
A:-230 V, 6 A
B:-240 V, 6 A
C:-230 V, 5 A
D:-240 V, 5 A
Correct Answer:- Option-B

Question26:-What type of insulating material is used for making the neutral link ?
A:-Mica
B:-Asbestos
C:-Porcelain
D:-Celluloid
Correct Answer:- Option-C

Question27:-The latest version of switches in switch board among the following
A:-Surface mounting switch
B:-Pull switch
C:-Modular switch
D:-Flush switch
Correct Answer:- Option-C

Question28:-What is the expansion of the term 'MCCB' ?

A:-Molded Current Circuit Breaker
B:-Main Current Circuit Breaker
C:-Master Current Circuit Breaker
D:-Molded Case Circuit Breaker
Correct Answer:- Option-D

Question29:-What is the use of RCCB ?
A:-Protect the human being from shock
B:-Protect the equipments from lightning
C:-Both 1 and 2
D:-Avoid short circuit
Correct Answer:- Option-C

Question30:-How many earth connections should be done in a 10 Hp squirrel cage induction motor as per IE (Indian Electricity) rule ?
A:-Two
B:-One
C:-Three
D:-Four
Correct Answer:- Option-A

Question31:-'Water' belongs to which type of magnetic material ?
A:-Para magnetic material
B:-Dia magnetic material
C:-Ferro magnetic material
D:-Non magnetic material
Correct Answer:- Option-B

Question32:-'There are three principle method of magnetizing a material'. Which of the following is not a method of magnetizing a material ?
A:-Touch method
B:-Induction method
C:-Drop method
D:-By means of electric current
Correct Answer:- Option-C

Question33:-Choose the wrong statement from the following about magnetic property.
A:-A single pole can never exist in a magnet
B:-A magnet is freely suspended; its pole will always tend to set in the direction of north and south
C:-Unlike poles attract each other
D:-If heated the strength of the magnet will increases
Correct Answer:- Option-D

Question34:-'Right hand grip rule' can be used to determine
A:-Direction of magnetic field
B:-Strength of the magnet
C:-The property of the magnet
D:-Polarity of the magnet
Correct Answer:- Option-A

Question35:-'Hold the thumb, fore finger and middle finger of the right hand in mutually perpendicular'.
In which rule this statement belongs to ?
A:-Fleming's left hand rule
B:-Fleming's right hand rule
C:-Right hand grip rule
D:-Cork screw rule
Correct Answer:- Option-B

Question36:-What is the unit of reluctance ?
A:-Ampere turns
B:-Weber (Wb)
C:-Wb/`m^(2)` (Weber/`metre^(2)`)
D:-Ampere Turns/Weber
Correct Answer:- Option-D

Question37:-In which type of capacitors made in the form of stacked arrangement ?
A:-Ceramic capacitors
B:-Mica capacitors
C:-Paper capacitors

D:-Air capacitors
Correct Answer:- Option-B
Question38:-How materials dissipate the energy due to hysteresis loss ?
A:-Force developed as counter emf
B:-Exist as residual magnetism
C:-In the form of current
D:-Appears in the form of heat
Correct Answer:- Option-D
Question39:-Among the following factors, which one is not determine the inductance ?
A:-Types of core permeability
B:-Weight of the coil
C:-Number of turns of wire in coil
D:-Spacing between turns of wire
Correct Answer:- Option-B
Question40:-The name which indicates the opposition offered to flow the current by a capacitor ?
A:-Capacitance
B:-Dielectric strength
C:-Capacitive reactance
D:-Resistance
Correct Answer:- Option-C
Question41:-What is the frequency of pure direct current in hertz ?
A:-50
B:-Zero
C:-Infinitive
D:-Higher than the alternating current
Correct Answer:- Option-B
Question42:-How can define the Form factor of an alternating supply ?
A:-The ratio of effective value to average value of a half cycle
B:-The ratio of effective value to average value of a full cycle
C:-The ratio of peak value to average value of a half cycle
D:-The ratio of peak value to average value of a full cycle
Correct Answer:- Option-A
Question43:-Why a circuit with pure inductance alone can never be formed ?
A:-The inductance in the connecting wires opposes the pure inductance
B:-Connecting wires and the inductors all have some resistance
C:-Connecting wires and the inductors all have some capacitance
D:-None of these
Correct Answer:- Option-B
Question44:-What is the theoretical value of power factor for a circuit containing pure resistance only ?
A:-Zero
B:-Infinitive
C:-0.5
D:-One
Correct Answer:- Option-D
Question45:-Why in the case of pure inductive circuit the power factor is zero ?
A:-The angle between the current and voltage is 0°
B:-The angle between the current and voltage is 90°
C:-The angle between voltage and inductance is 0°
D:-The angle between voltage and inductance is 90°
Correct Answer:- Option-B
Question46:-Choose correct equation for power factor. Here 'R' denotes for Resistance, 'V' denotes for Voltage and 'Z' denote for Impedance.
A:-Power factor, cosΦ = V/Z
B:-Power factor, cosΦ = Z/V
C:-Power factor, cosΦ = R/Z
D:-Power factor, cosΦ = Z/R
Correct Answer:- Option-C
Question47:-In star connection, Line voltage =
A:-Phase voltage

B:-√3 × Phase voltage
C:-1/√3 phase voltage
D:-3 × Phase voltage
Correct Answer:- Option-B

Question48:-Choose the correct answer regarding to the supply system can be produce rotating magnetic field.
A:-Single phase alternating supply only
B:-Three phase alternating supply only
C:-Double phase alternating supply only
D:-Both three phase alternating supply and double phase alternating supply
Correct Answer:- Option-D

Question49:-In secondary of a distribution transformers, have their three coils inter connected in _____ connection.
A:-Star
B:-Delta
C:-Either star or delta
D:-Neither star nor delta
Correct Answer:- Option-A

Question50:-What is the most convenient distribution system for electrical energy distribution system, widely used in Kerala State for Domestic Connection ?
A:-415/240 V, Three phase three wire system
B:-415/240 V, Three phase four wire system
C:-415/240 V, DC two wire system
D:-415/240 V, DC three wire system
Correct Answer:- Option-B

Question51:-The number of diodes required for a bridge rectifier
A:-1
B:-2
C:-4
D:-6
Correct Answer:- Option-C

Question52:-The process of conversion AC to DC is called
A:-Filtering
B:-Rectification
C:-Clipping
D:-Amplification
Correct Answer:- Option-B

Question53:-Zener diode is mostly used as
A:-Led
B:-Full wave rectifier
C:-Half wave rectifier
D:-Voltage regulator
Correct Answer:- Option-D

Question54:-The advantage of a JFET is
A:-Lower gain
B:-Higher noise
C:-High input impedance
D:-Low input impedance
Correct Answer:- Option-C

Question55:-A JFET can operate in
A:-Depletion mode only
B:-Enhancement mode only
C:-Depletion and enhancement modes
D:-Vibrating mode
Correct Answer:- Option-A

Question56:-The ripple factor of full wave rectifier is
A:-1.21
B:-0.48
C:-1.11
D:-1.41
Correct Answer:- Option-B

Question57:-An SCR is a
A:-NPPN device
B:-PNNP device
C:-PNPN device
D:-PPN device
Correct Answer:- Option-C
Question58:-UJT is also called a
A:-Current controllable device
B:-Transistorized junction device
C:-Relaxation oscillator
D:-Voltage controllable device
Correct Answer:- Option-D
Question59:-The process of adding impurities to a semi conductor is known as
A:-Doping
B:-Polling
C:-Intrusion
D:-Plugging
Correct Answer:- Option-A
Question60:-The control parameter of JFET is
A:-Drain voltage
B:-Gate voltage
C:-Gate current
D:-Source voltage
Correct Answer:- Option-B
Question61:-The armature of a DC generator is laminated to
A:-Reduce eddy current losses
B:-Reduce the bulk
C:-Insulate the core
D:-Provide passage of cooling air
Correct Answer:- Option-A
Question62:-The split rings are made of
A:-Brass
B:-Bronze
C:-Gun metal
D:-Hard drawn copper
Correct Answer:- Option-D
Question63:-The type of winding used in machines having low current and high voltage capacity is
A:-Wave winding
B:-Armature winding
C:-Lap winding
D:-Compensating winding
Correct Answer:- Option-A
Question64:-In DC generators armature reaction is produced actually by
A:-Armature conductors
B:-Field current
C:-Load current in armature
D:-Field pole winding
Correct Answer:- Option-C
Question65:-The type of generator used for charging battery is
A:-Compound generator
B:-Shunt generator
C:-Series generator
D:-Differentially compound generator
Correct Answer:- Option-B
Question66:-For high starting torque which type of DC motor is used ?
A:-Series motor
B:-Shunt motor
C:-Cumulative compound motor
D:-Differential compound motor

Correct Answer:- Option-A

Question67:-The maximum power output for DC motor is at

A:-Eb = V

B:-Eb = V/2

C:-Eb = IaRa

D:-Eb = IaRa/2

Correct Answer:- Option-B

Question68:-In wardleonard method of speed control the DC motor is

A:-Shunt motor

B:-Separately excited motor

C:-Compound motor

D:-Series motor

Correct Answer:- Option-A

Question69:-The function of the starter in a DC machine is

A:-To avoid armature reaction

B:-To control the speed

C:-To avoid excessive current at starting

D:-To avoid excessive heating

Correct Answer:- Option-C

Question70:-Which type starter is used for starting DC series motor ?

A:-Three point starter

B:-Four point starter

C:-Autotransformer starter

D:-Two point starter

Correct Answer:- Option-D

Question71:-The maximum speed of a four pole alternator at a frequency of 50 Hz will be

A:-1000 rpm

B:-3000 rpm

C:-1500 rpm

D:-750 rpm

Correct Answer:- Option-C

Question72:-Crawling occurs in induction motors are due to

A:-Overload

B:-Harmonics developed in the motor

C:-Laminated bearings

D:-Low supply voltage

Correct Answer:- Option-B

Question73:-Which motor is one which operates on AC and DC supply ?

A:-Capacitor start motor

B:-Repulsion motor

C:-Resistance start induction run motor

D:-Universal motor

Correct Answer:- Option-D

Question74:-In a shaded pole single phase motor the revolving field is produced by the use of

A:-Inductor

B:-Capacitor

C:-Shading coils

D:-Resistor

Correct Answer:- Option-C

Question75:-Alternators are rated in

A:-KVA

B:-MW

C:-KVAR

D:-KWH

Correct Answer:- Option-A

Question76:-Rotor of an induction motor runs always

A:-In opposite direction to the field

B:-At less than synchronous speed

C:-At synchronous speed

D:-At more than synchronous speed
Correct Answer:- Option-B
Question77:-Turbo alternators usually have
A:-6 poles
B:-8 poles
C:-2 poles
D:-12 poles
Correct Answer:- Option-C
Question78:-Starting capacitor of a single phase motor is
A:-Electrolytic capacitor
B:-Paper capacitor
C:-Mica capacitor
D:-Ceramic capacitor
Correct Answer:- Option-A
Question79:-In star delta starter of an induction motor
A:-Resistance is put in the stator circuit
B:-Resistance is put in the rotor circuit
C:-Applied voltage per phase is 57.8% of the line voltage
D:-Reduced voltage is applied to the motor and starter
Correct Answer:- Option-C
Question80:-Hunting in alternator is prevented by using
A:-Lap winding
B:-Wave winding
C:-Existing winding
D:-Damper winding
Correct Answer:- Option-D
Question81:-Efficiency of a power transformer is of the order of
A:-50%
B:-98%
C:-75%
D:-30%
Correct Answer:- Option-B
Question82:-The principle of working of a transformer is
A:-Mutual induction
B:-Self induction
C:-Dynamic induction
D:-Static induction
Correct Answer:- Option-A
Question83:-The path of the magnetic flux in a transformer has
A:-High conductivity
B:-Low resistance
C:-Low reluctance
D:-High resistance
Correct Answer:- Option-C
Question84:-Power transformers are designed to have maximum efficiency at
A:-Half load
B:-No load
C:-Little more than full load
D:-Near full load
Correct Answer:- Option-D
Question85:-Dielectric strength of a transformer oil is measured in
A:-Kilo volt/mm
B:-Kilo watt
C:-Kilo volt
D:-Kilo ohm
Correct Answer:- Option-A
Question86:-The short circuit test in the transformer is used to determine
A:-The eddy current loss
B:-The hysteresis loss

C:-The copper loss at any load or at full load
D:-The iron loss at any load
Correct Answer:- Option-C
Question87:-The purpose of breather in a transformer is
A:-To reduce core loss
B:-To cooling the windings
C:-To protect the tank from lightning
D:-To absorb moisture from air
Correct Answer:- Option-D
Question88:-Buchholz relay is placed
A:-In between HV winding and the bushing
B:-In between the tank and the conservator
C:-In between LV winding and bushing
D:-In between the conservator and breather
Correct Answer:- Option-B
Question89:-An autotransformer is mainly used as a
A:-Voltage regulating transformer
B:-Distribution transformer
C:-Power transformer
D:-Instrument transformer
Correct Answer:- Option-A
Question90:-Transformer is used to change the values of
A:-Power factor
B:-Frequency
C:-Voltage
D:-Power
Correct Answer:- Option-C
Question91:-Continuity of an electrical circuit is usually checked by
A:-Ammeter
B:-Ohmmeter
C:-Voltmeter
D:-Power factor meter
Correct Answer:- Option-B
Question92:-Which of the following is an absolute instrument ?
A:-Tangent galvanometer
B:-Power factor meter
C:-Ammeter
D:-Wattmeter
Correct Answer:- Option-A
Question93:-The disadvantage of gravity control method is that it is
A:-Light in weight
B:-Costly
C:-Kept in vertical position
D:-Graduated uniformly
Correct Answer:- Option-C
Question94:-The speed of an energy meter can be controlled by
A:-Pole shoe magnet
B:-Shunt magnet
C:-Series magnet
D:-Braking magnet
Correct Answer:- Option-D
Question95:-The material used for making springs for spring control instrument is
A:-Phosphor bronze
B:-Platinum silver
C:-Silicon bronze
D:-Platinum iridium
Correct Answer:- Option-A
Question96:-Instrument transformer works on the principle of
A:-Self induction

B:-Mutual induction
C:-Flemings right hand rule
D:-Skin effect
Correct Answer:- Option-B

Question97:-Under voltage relays are mostly used for
A:-Motor protection
B:-Feeder protection
C:-Transformer protection
D:-Bus bar protection
Correct Answer:- Option-A

Question98:-Cross arm is fixed to the pole is to
A:-Bind wire
B:-Fix the insulator
C:-Draw the neutral wire
D:-Strengthen the pole
Correct Answer:- Option-B

Question99:-The depth of pole below the ground level on a normal soil should be _____ of the height of the pole.
A:-1/`5^(th)`
B:-1/`8^(th)`
C:-1/`6^(th)`
D:-1/`4^(th)`
Correct Answer:- Option-C

Question100:-In nuclear power plant a moderator is used to
A:-Slow down electrons
B:-Direct the flow of electrons
C:-Accelerate the electrons
D:-Slow down neutrons
Correct Answer:- Option-D