

NPDCL JLM MODEL PAPER

- If Four $10 \mu F$ capacitors are connected in parallel the net capacitance is
(A) $2.5 \mu F$ (B) $40 \mu F$
(C) $20 \mu F$ (D) $15 \mu F$
- Three resistance of R ohms each are connected in delta It's equivalent resistances in star connection per phase is
(A) R/3 each (B) R each
(C) 3 R each (D) 3 R, R & R/3
- An Ideal current source has zero
(A) Internal conductance
(B) Internal resistance
(C) Voltage on No Load (D) Ripple
- Three Inductors each OF 60 MH are connected in delta. The value of Inductance of each arm of the equivalent star connection is
(A) 10 mH (B) 15 mH
(C) 20 mH (D) mH
- The break down voltage of silicon diode is
(A) 0.2 volts (B) 0.6 volts
(C) 0.3 volts (D) 0.2 volts
- The impedance of the circuit is $(4 + j3)$ ohms. The power Factor of the circuit is
(A) 0.6 Lead (B) 0.8 Lead
(C) 0.6 Log (D) 0.8 Lag
- Three resistors each of R are connected in star what is the value of equivalent delta connected resistors.
(A) R/2 (B) 2 R (C) R/3 (D) 3 R
- The condition of electroplate in a battery is measured in terms of
(A) Current value (B) Specific Gravity
(C) Acid contents (D) Voltage output
- The colour of negative plate of a led acid battery is
(A) Brown (B) Grey (C) White (D) Black
- The normal voltage of a fully charged led acid cell is
(A) 1.1 V (B) 1.5 V (C) 2.2 V (D) 3.0 V
- A 12 V Led acid battery consists of
(A) Three cell in series
(B) Six cell in series
(C) Three cells in parallel
(D) Six cells in parallel
- The capacity of the battery is expressed in
(A) Watt - Hour (B) Ampere/sec
(C) Amepere-hour (D) Kilo watt
- The unit of reluctance is
(A) Ampere/cm² (B) Weber/m²
(C) Ampere turns/weber
(D) Ampere/weber
- Tesla is the SI unit
(A) Flux density
(B) M agneto motive force
(C) Reluctance (D) magnetic field strength
- What is the similar magnetic term for the electrical term of conductance
(A) Reluctance (B) Flux density
(C) Permence (D) Field intensity
- The Formula of dynamically induced EMF is
(A) BLV Volts (B) BLV Sin O Volts
(C) BLV COS O Volts (D) BL Sin O Volts
- An Electromagnet of length 10 cm with magnetizing force of 1500 AT/mt works in magnetizing circuits calculates its magneto motive force (MMF).
(A) 15000 A.T (B) 1500 A.T
(C) 150 A.T (D) 15 A.T
- Which one is the paramagnetic material
(A) Bismuth (B) Wood (C) Air (D) Glass
- The relation between the resonant frequency FO and the half - power frequencies F1 and F2 is
(A) $FO = f1 F2$ (B) $FO = F1 + F2/2$
(C) $FO = F1 F2$ (D) $FO2 = F1 + F2$
- The time constant of a series R- L circuit is given by
(A) L2 R (B) LR (C) LR (D) L/R
- For an RLc series circuit current at series resonance is
(A) Maximum at leading PF
(B) Maximum at Lagging PF
(C) Maximum at unity PF
(D) Minimum at unity PF
- In a series R-L-C circuit the Q-Factor is given by
(A) $Q = 1/R$ (B) $Q = F/W$ (C) $1/R$ (D) $Q = R$
- The power Factor of an a.c. circuit is given by
(A) XL/R (B) Z/R (C) R/XL (D) R/Z
- The active and reactive powers of an inductive circuit are 60 w and 80 VAR respectively. The power Factor of the circuit.
(A) 0.5 Log (B) 0.6 Log
(C) 0.75 Log (D) 0.8 Log
- The Knee Voltage of Germanium diode is
(A) 1.0 v (B) 0.3 V (C) 0.7 mv (D) 0.3 V
- Which of the following materials is a semiconductor
(A) Selenium (B) Bismath
(C) Silica (D) Chromium
- The Ebers moll model is applicable to
(A) BJT (B) NMOS transistor
(C) UJT (D) JFET
- The input resistance of a FET is of the order of
(A) 100 (B) 10 K (C) 1M (D) 100 M
- Ideal operational amplifier has
(A) Infinite Input resistance
(B) Infinite output resistance
(C) Small gain (D) Small bandwidth
- The series motors have a relatively
(A) Zero starting torque
(B) High Starting Torque
(C) Low starting Torque
(D) Medium starting Torque
- In a dc shunt motor the torque developed is 15 N-m at 10 A of Load current. If the load current is doubled then new torque will be
(A) 0-N-m (B) 15N-m
(C) 30 N-m (D) 60 N-m
- The current in armature conductors of a dc machine is
(A) Pure dc (B) Pulstating dc
(C) ac (C) Pure dc pulsating dc
- The commutator in a d.c machines acts as
(A) A mechanical inverter
(B) A mechanical rectifier
(C) Current controller (D) either (a) or (b)
- Wave winding is employed in a dc machine for
(A) High current and Low Voltage rating
(B) Low current and high voltage rating
(C) High current and high voltage rating
(D) Low current and Low voltage rating
- The Eb/v ratio of a DC motor is an indication of its (Eb is the back emF and V is the applied voltage across the Armature)
(A) Speed regulation (B) Starting torque
(C) Efficiency (D) Running torque
- A transformer can have regulation closer to zero
(A) On lagging power factor
(B) On leading power factor
(C) On zero power factor
(D) On unity power factor
- The full load copper Loss of a transformer is 1600 watts at half load the copper loss will be
(A) 400 Watts (B) 80 Watt
(C) 1600 Watts (D) 6400 Watts
- In short circuit test on a transformer we generally short circuit
(A) Low Voltage winding
(B) High Voltage Winding
(C) Either low or high voltage winding
(D) Neither Low nor high Voltage winding
- The iron loss in a 100 KVA transformer is 1 KW and full load copper losses are 2 KW. The maximum efficiency occurs at a load of
(A) 70.7 KVA (B) 141.4 KVA
(C) 50 KVA (D) 100 KVA
- In a transformer zero voltage regulation at Full load is
(A) Not possible
(B) Possible at unity power Factor Load
(C) Possible at Leading Power Factor Load
(D) Possible at Lagging Power Factor Load
- In a three phase delta transformer one phase burns up the transformer will supply.
(A) 57, 7% or its rating (B) Zero out put
(C) 63% of its out put rating.
(D) at Full out put rating.
- A transformer has negative voltage regulation . When its load power Factor is
(A) Zero (B) Unity (C) Loading (D) Lagging
- The Router impedence of a slip ring induction motor is $100.1 + j0.6$ the resistance 1ph to be instested intorotoo to get maximum torque at starting should be
(A) 01. (B) 0.3 (C) 0.4 (D) 0.5
- The crawling in an induction motor is caused by
(A) High loads (B) Low supply voltage
(C) Improper design of malchine
(D) Halmonic developed bymitor
- Universal motor isa - motor
(A) Single phase induction motor
(B) Synchronous (C) Shunt (D) Series
- When the rotor of a three phase induction motor blocked the slip is
(A) 0 (B) 0.1 (C) 0.5 (D) 1
- Which of the following motor will give relatively high starting torque.
(A) Capacitor Start motor
(B) Capacitor Run motor
(C) Split Phase motor
(D) Shaded pole motor
- If a induction motor with certain ratio of rotor to stator slats runs at the 1/78th of the normal rated speed the motor is said to be
(A) Jogging (B) Crawling
(C) Cogging (D) Hunting
- Toreverse phase sequence of voltage generated in the alternates should be
(A) Not possible to change the phase sequence
(B) Interchange any two of its phase terminals
(C) Interchange all three of its field winding
(D) Reverse the connection of its field winding.
- The damping winding in a synchronous motor is generally used.
(A) To prevent hunting & provide the starting torque (B) Toreduce noise level
(C) To reduce eddy circuit
(D) To provide starting torque only
- The voltage regulation of an alternator depends on
(A) Nol load current only
(B) Power factor only
(C) Both load current and power factor
(D) Load current only
- The controlling torque in gravity controlled meter is proportional to
(A) Cos (B) Sin (C) Tan (d) Cot
- Which one of the following does not employ a null method of measurement.
(A) DC potential meter
(B) Kelvin double bridge
(C) AC potention meter (D) Meggar
- PMMC instrument normally use
(A) No damping is required
(B) Fluid friction damping
(C) Eddy current damping
(D) Air friction damping.
- Two holes as a drilled in the disc on a diameter of energy meter.
(A) Increase ventilation
(B) Reduce weight of disc
(C) Eliminate criping on no loaded
(D) Increased deflection torque
- Accurate measurement of very low resistance is possible with
(A) Muggar (B) Wheat Stone bridge
(C) Kelvins double bridge
(D) Wagner's earthing bridge
- Die Electric losses in a capacitors is bet measured by
(A) Weigh bridge (B) Scheming bridge
(C) Anderson bridge (D) Hay's bridge
- The unit of luminous flux is
(A) Webbers (B) Lax
(C) Lumens (D) Candela
- If 'd is the distance of a surface from a source the illumination upon the surface will vary as
(A) D (B) D2 (C) 1/d (D) 1/d 2
- The solution of point by point method adopted to solve the swing equation
(A) Power angle
(B) Critical cleansing angle
(C) Clearing angle (D) Clearing time
- Which of the following heat exchanges is used to raise the temperature of steam from normal to sopes saturation level.
(A) Air pre heater (B) Economised
(C) Super Heats (D) Condenser
- ACSR stands for
(A) Aluminium copper steel reinforced
(B) Aluminium copper standard reinforced
(C) Aluminium conductor still reinforced.
(D) Aluminium conductor standard reinforced.
- The bundling of conductor is done primarily to
(A) Reduce resistance
(B) Increases resistance
(C) Increases radio interference
(D) Reduce radio interference

(మిగతా ప్రశ్నలు, సమాధానాలు రేపటి స్టడీలో)

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Answers

1) B	14) D	27) A	40) C	53) D
2) A	15) C	28) D	41) A	54) C
3) A	16) B	29) A	42) C	55) C
4) C	17) C	30) C	43) D	56) D
5) B	18) C	31) C	44) D	57) B
6) C	19) A	32) C	45) D	58) C
7) D	20) B	33) D	46) D	59) D
8) B	21) C	34) B	47) A	60) B
9) B	22) B	35) C	48) B	61) C
10) C	23) D	36) B	49) B	62) A
11) B	24) B	37) A	50) C	63) B
12) C	25) B	38) A	51) C	
13) C	26) C	39) A	52) B	