

Program: BE -Electrical Engineering

Curriculum Scheme: Revised 2012

Examination: Third Year Semester V

Course Code: EEC502and Course Name: Electrical Machines II

Time: 1 hour

Max. Marks: 50

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Note to the students:- All the Questions are compulsory and carry equal marks .

Q1.	We laminate transformer core to reduce _____
Option A:	eddy current loss
Option B:	ohmic losses
Option C:	core losses
Option D:	Hysteresis losses
Q2.	Dd0 belongs to which group
Option A:	group2
Option B:	group3
Option C:	group4
Option D:	Group1
Q3.	How many transformer groups are formed?
Option A:	2
Option B:	1
Option C:	3
Option D:	4
Q4.	Scott connections are used for _____
Option A:	Three phase to two phase conversion
Option B:	one phase to three phase conversion
Option C:	three phase to one phase conversion
Option D:	all phase conversion
Q5.	Open delta transformers can be obtained from _____
Option A:	delta-delta
Option B:	star -delta
Option C:	star-star
Option D:	delta-star

Q6.	The two windings in a single phase Split Phase Induction Motor are
Option A:	spaced 270 degrees
Option B:	spaced 180 degrees
Option C:	in Space quadrature
Option D:	spaced 120 degrees
Q7.	The shaft of an single phase induction motor is made of
Option A:	Carbon steel
Option B:	Cast iron
Option C:	Aluminum
Option D:	Stainless steel
Q8.	The frame of an single phase induction motor is usually made of
Option A:	Cast iron
Option B:	Aluminum
Option C:	Silicon steel
Option D:	Bronze
Q9.	Which loss is negligible for induction motor ?
Option A:	Stator copper loss
Option B:	Rotor iron loss
Option C:	Friction loss
Option D:	Windage loss
Q10.	Commonly used motor in industries is
Option A:	Synchronous motor
Option B:	DC motor
Option C:	Induction motor
Option D:	Stepper motor
Q11.	The difference between synchronous speed and actual speed in induction motor is known as
Option A:	Slip
Option B:	Regulation
Option C:	Backlash
Option D:	Lag
Q12.	Which part is not available in squirrel cage induction motor ?
Option A:	Frame
Option B:	Stator
Option C:	Rotor
Option D:	Slip ring
Q13.	Which is true for slip ring induction motor ?
Option A:	Low cost
Option B:	Less size

Option C:	Less starting torque
Option D:	High starting torque
Q14.	The frequency of rotor is obtained by
Option A:	f
Option B:	sf
Option C:	s
Option D:	f/s
Q15.	Starting torque of induction motor is proportional to
Option A:	V
Option B:	V^2
Option C:	$V/2$
Option D:	2V
Q16.	Synchronous speed of induction motor is
Option A:	$120p/f$
Option B:	$120/p$
Option C:	$120f/p$
Option D:	$120/f$
Q17.	Maximum speed of 2 pole induction motor cannot be
Option A:	750 rpm
Option B:	1000 rpm
Option C:	1500 rpm
Option D:	3000 rpm
Q18.	If rotor of motor is standstill then value of slip is
Option A:	0
Option B:	0.5
Option C:	0.75
Option D:	1
Q19.	In a single phase Induction Motor, as per Double field revolving theory, what is the slip of the rotor with respect to the forward rotating field?
Option A:	s
Option B:	$1/s$
Option C:	$1-s$
Option D:	$2-s$
Q20.	How are both the forward and backward components of flux at the starting condition of a single phase Induction motor ?
Option A:	Zero
Option B:	equal to each other
Option C:	opposite to each other
Option D:	doubled

Q21.	Which part is available in slip ring induction motor ?
Option A:	Frame
Option B:	Stator
Option C:	Slip ring
Option D:	Frame, Stator and Slip ring
Q22.	In a single-phase Induction motor, the function of the centrifugal switch is to cut off the starting winding, when the rotor has accelerated to about what percentage of its rated speed?
Option A:	10
Option B:	50
Option C:	75
Option D:	100
Q23.	In which test on a Single phase Induction motor, magnetizing reactance, X_m be determined, if x_1 and x_2 are known?
Option A:	Blocked Rotor Test
Option B:	No- load Test
Option C:	Insulation Resistance Test
Option D:	Winding Temperature Test
Q24.	A three phase Induction Motor , while supplying a constant load, has the fuse of one line suddenly blown off. By how many times the line current nearly increases for the motor to run as a single phase Induction motor ?
Option A:	1.732
Option B:	3
Option C:	5
Option D:	1.414
Q25.	A 230V,4 -pole ,50 Hz, Single phase Induction motor has stator resistance of 2.3 Ω , rotor resistance of 4.2 Ω . It has stator leakage reactance of 3.2 Ω , rotor leakage reactance of 3.2 Ω . It also has a magnetizing reactance of 74 Ω . If the motor is running with a slip of 0.05 at rated voltage and frequency, Calculate the backward field impedance.
Option A:	1.85L57.6 0
Option B:	6L57.6 0
Option C:	1.85L90 0
Option D:	6L57.6 0

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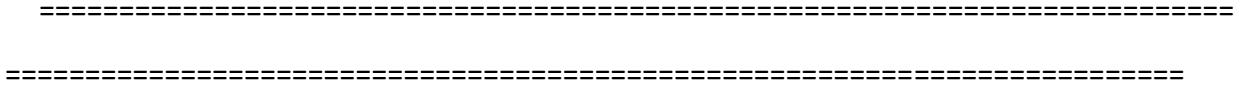
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Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	A
Q2.	D
Q3.	D
Q4	A
Q5	A
Q6	C
Q7	A
Q8.	A
Q9.	B
Q10.	C
Q11.	A
Q12.	D
Q13.	D
Q14.	B
Q15.	B

Q16.	A
Q17.	D
Q18.	D
Q19.	A
Q20.	C
Q21.	D
Q22.	C
Q23.	B
Q24.	A
Q25.	A