#### University of Mumbai Examination 2020- Inter Cluster

Program: BE Instrumentation Engineering

Curriculum Scheme: Revised 2016

Examination: Third Year Semester VI

Course Code: ISC603 and Course Name: Electrical Machines and Drives

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Time: 1hour

Max. Marks: 50

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

Q1.	No-load speed of which of the following motor is highest?
Option A:	Differentially compound motor
Option B:	Cumulative compound motor
Option C:	Series Motor
Option D:	Shunt Motor
Q2.	Which of the following is used to determine the direction of rotation
	of DC motor?
Option A:	Coloumb's law
Option B:	Lenz's law
Option C:	Fleming's Right Hand Rule
Option D:	Fleming's Left Hand Rule
Q3.	A three-point starter is suitable for
Option A:	Shunt Motor
Option B:	Series Motor
Option C:	Shunt & Compound Motor
Option D:	Shunt & Compound Motor
Q4.	If the back EMF of DC motor vanishes then
Option A:	The motor continues to run
Option B:	Motor will stop
Option C:	Armature will burn
Option D:	The motor continues to run in slow speed
Q5.	Which of the following application requires high starting torque
Option A:	Elevator
Option B:	Air blower

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Option C:	Centrifugal Pump
Option D:	Locomotive
Q6.	The frame of an induction motor is usually made of
Option A:	Silicon steel
Option B:	Cast iron
Option C:	Aluminum
Option D:	Bronze
Q7.	A 3-phase 440 V, 50 Hz induction motor has 4% slip. The frequency
	of rotor current will be
Option A:	50 Hz
Option B:	25 Hz
Option C:	5 Hz
Option D:	2 Hz
Q8.	A 50 Hz, 3-phase induction motor has a full load speed of 1440 r.p.m.
	The number of poles in the motor is
Option A:	2 pole
Option B:	4 pole
Option C:	6 pole
Option D:	8 pole
Q9.	As compared to DOL starting method the star delta starting method
	should have
Option A:	High torque
Option B:	Low starting current
Option C:	High starting current
Option D:	Smooth acceleration
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Q10.	If any two phases for an induction motor are interchanged
Option A:	The motor will run in the reverse direction
Option B:	The motor will continue to run in the same direction
Option C:	The motor will stop
Option D:	The motor will Burn
Q11.	In a split phase motor, the running winding should have
Option A:	High resistance and low inductance
Option B:	High resistance and High inductance
Option C:	Low resistance and high inductance

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Option D:	Low resistance and Low inductance
Q12.	In split phase motor, the main winding is made up of
Option A:	Thick wire placed at the top of the slots
Option B:	Thick wire placed at the bottom of the slots
Option C:	Thin wire placed at the top of the slots
Option D:	Thin wire placed at the bottom of the slots
Q13.	If starting winding of a single-phase induction motor is left in the
	circuit, it will
Option A:	Damage the starting winding
Option B:	Run Faster
Option C:	Run slower
Option D:	Spark at light load
Q14.	In a shaded pole single-phase motor, the revolving field is produced
	by the use of
Option A:	Shading coils
Option B:	Capacitor
Option C:	Inductor
Option D:	Resistor
Q15.	Which semiconductor power device out of the following, is not a
	current triggering device
Option A:	Thyristor
Option B:	Triac
Option C:	G.T.O
Option D:	MOSFET
016	
Q16.	TRIAC is a semiconductor power electronic device which contains
Option A:	Two SCR's connected in reverse parallel
Option B:	Two SCR's connected in parallel
Option C:	Two SCR's connected in series
Option D:	Two BJT's connected in series
017	The inverter can be classified as
Q1/.	Voltage Source Inverter
Option P:	Current Source Inverter
Option C:	Both 1 and 2
Option D:	Down Inverter
Option D:	רטאכו ווועפונט

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Q18.	In a three-phase half-wave rectifier, each diode conducts for a
	duration of
Option A:	180°
Option B:	120°
Option C:	90°
Option D:	60°
Q19.	The thyristor is turned -off when the anode current falls below
Option A:	Forward current
Option B:	Latching current
Option C:	Holding current
Option D:	Breakover current
Q20.	In a thyristor circuit, the angle of conduction is changed by changing
Option A:	Anode voltage
Option B:	Gate current
Option C:	Forward current
Option D:	Anode current
Q21.	UJT when used for triggering an SCR, has the waveform
Option A:	Sine wave
Option B:	Square Wave
Option C:	Trapezoidal
Option D:	Saw tooth wave
Q22.	Inverter converts
Option A:	DC to AC
Option B:	AC to DC
Option C:	DC to DC
Option D:	AC to AC
002	
Q23.	A SUK IS a SWITCH
Option R:	Two directional
Option C:	Three directional
Option D.	Four directional
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Q24.	For an application which requires smooth and precise speed control
	over the wide range, the motor is preferred is
Option A:	Squirrel cage Induction Motor
Option B:	Synchronous Motor
Option C:	DC motor
Option D:	Wound Rotor Induction Motor
Q25.	Stator voltage control for the speed control of induction motor is
	suitable for
Option A:	Fan and Pump Drive
Option B:	Drive of a crane
Option C:	Running as the generator
Option D:	Constant Load drive