

Program: BE Electrical Engineering

Curriculum Scheme: Revised 2012

Examination: Third Year Semester VI

Course Code: EEC603 and Course Name: Utilization of Electrical Energy

Time: 1 hour

Max. Marks: 50

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

Q1.	The science of producing and maintaining temperature below that of the surrounding atmosphere is called
Option A:	Vapour absorption
Option B:	Refrigeration
Option C:	Vapour compression
Option D:	Air conditioning
Q2.	In an arc furnace choke is provided to _____.
Option A:	Improve power factor
Option B:	Stabilize the arc
Option C:	Reduce the surge
Option D:	Improve productivity
Q3.	When the speed of the train is estimated taking into account the time of stop at a station in addition to the actual running time between stops, is known as
Option A:	Average speed
Option B:	Free running speed
Option C:	Notching speed
Option D:	Scheduled speed
Q4.	Which type of transformers are necessary in AC traction to confine the return current through the rails.
Option A:	Step up transformer
Option B:	Booster transformer
Option C:	Step down transformer
Option D:	Centre tap transformer
Q5.	The main characteristic feature of air refrigeration system is that throughout the cycle the refrigerant remains in
Option A:	Liquid state
Option B:	Vaccum state
Option C:	Solid state

Option D:	Gaseous state
Q6.	The ratio of reflected light to the incident light is called
Option A:	Glare
Option B:	Reflection factor
Option C:	Absorption factor
Option D:	Beam factor
Q7.	Which of the following generators are used in arc welding
Option A:	Shunt Generators
Option B:	Series Generators
Option C:	Cumulative compound generators
Option D:	Differential compound generators
Q8.	If the co-efficient of adhesion on dry rails is 0.26 which of the following will be the value for wet rails
Option A:	0.3
Option B:	0.225
Option C:	0.16
Option D:	0.26
Q9.	Which lamp cannot sustain much voltage fluctuation
Option A:	Sodium vapour lamp
Option B:	Mercury vapour lamp
Option C:	Incandescent lamp
Option D:	Flourscent lamp
Q10.	The preferable method of speed control of linear induction motor in traction is
Option A:	Variable flux control
Option B:	PAM Control
Option C:	Variable frequency and a constant voltage control
Option D:	Variable frequency and variable voltage control
Q11.	Induction heating process is based on
Option A:	Electro-magnetic induction principle
Option B:	Resistance heating
Option C:	Thermal ion release principle
Option D:	Nuclear heating principle
Q12.	The condition of refrigerant after passing through the condenser in a vapour compression system is
Option A:	Saturated liquid
Option B:	Wet vapour
Option C:	Dry saturated vapour
Option D:	Superheated vapour

Q13.	Which is the advantage of electric breaking
Option A:	Motor continuous to remain loaded during braking
Option B:	It is instantenous
Option C:	It avoids wear to the track
Option D:	More heat is generated during breaking
Q14.	Which of the drive need two propulsion component ?
Option A:	Series hybrid
Option B:	Parallel hybrid
Option C:	Complex hybrid
Option D:	Electric vehicle
Q15.	Method of speed control used on 25 kV, 50 Hz single phase traction is
Option A:	Tap changing control of transformer
Option B:	Reduced current method
Option C:	Series parallel operation of motors
Option D:	Bridge transition method
Q16.	The luminous intensity in all the directions can be represented by
Option A:	Photometer Heads
Option B:	Photometer
Option C:	Polar curves
Option D:	Photocells
Q17.	Select a self contained locomotive
Option A:	Steam engine drive
Option B:	Battery electric drive
Option C:	Internal combustion engine drive
Option D:	Tram way drive
Q18.	Which of the following is present inside a fluorescent tube?
Option A:	Argon and neon
Option B:	Argon and CO ₂
Option C:	Mercury vapour
Option D:	Helium and oxygen
Q19.	In Electric vehicles which is acting as sole propulsion unit
Option A:	Battery unit
Option B:	Electric Motor
Option C:	Internal combustion engine
Option D:	Ultracapacitors
Q20.	The pulsations in the DC voltages are removed by which of the following device before feeding to the DC series motor in traction
Option A:	Capacitors

Option B:	Smoothing choke
Option C:	Resistor Bank
Option D:	Step down transformers
Q21.	Light waves travel with a velocity of
Option A:	3×10^{10} cm/s
Option B:	3×10^{12} cm/s
Option C:	3×10^{15} cm/s
Option D:	3×10^{18} cm/s.
Q22.	In a refrigeration system, the expansion device is connected between the
Option A:	Compressor and condenser
Option B:	Condenser and receiver
Option C:	Evaporator and compressor
Option D:	Receiver and evaporator
Q23.	Which type of friction is acting between wheel flanges and rails
Option A:	Air friction
Option B:	External friction
Option C:	Tractive friction
Option D:	Internal friction
Q24.	Long distance railways use
Option A:	25 kV Two phase AC
Option B:	25 kV Three phase AC
Option C:	200 V DC supply
Option D:	25 kV single phase AC
Q25.	Which type of motor uses rare earth magnets in rotor construction of EV
Option A:	DC series motor
Option B:	PM motors
Option C:	Induction motors
Option D:	SRM motors

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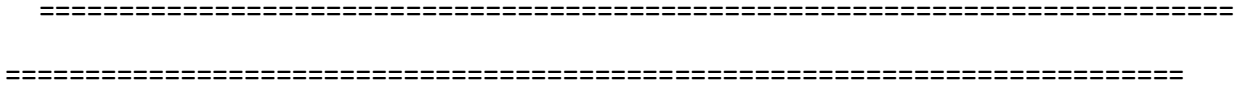
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Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	B
Q2.	B
Q3.	D
Q4	B
Q5	D
Q6	B
Q7	D
Q8.	C
Q9.	D
Q10.	C
Q11.	A
Q12.	A
Q13.	C
Q14.	B
Q15.	A

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