Unit 3 Multiple choice questions

- The secondary winding of which of the following transformers is always kept closed?

1. Current transformer
2. Voltage transformer
3. Power transformer
4. Step down transformer

- If the supply frequency of a transformer increases, the secondary output voltage of the transformer

1. Increase
2. Decrease
3. Remain the same
4. Any of the above

- Lamination of the transformer core is made of

1. Cast Iron
2. Silicon Steel
3. Aluminum
4. Cast Steel

- A transformer transform

1. Current
2. Voltage & current
3. Frequency
4. Voltage

- **A transformer**
  (A) Changes ac to dc
- (B) Changes dc to ac
- (C) Steps up or down dc voltages
- (D) Steps up or down ac voltages

Transformer mcq

- **Primary winding of a transformer**
- A) Is always a low voltage winding
- (B) Is always a high voltage winding
- (C) Could either be a low voltage or high voltage winding
- (D) None of the above

mcq

- When a 6 V battery is connected across the primary of a transformer with a turns ratio of 8, the secondary voltage is

- (A) 0 V
- (B) 6 V
- (C) 48 V
- (D) 0.75 V

Mcq

- **When the turns ratio of a transformer is 20 and the primary ac voltage is 12 V, the secondary voltage is**
- A) 12 V
- (B) 120 V
- (C) 240 V
- (D) 2,400 V
- **How many primary volts must be applied to a transformer with a turns ratio of 0.1 to obtain a secondary voltage of 9 V?**
  (A) 9 V
- (B) 90 V
- (C) 900 V
- (D) 0.9 V

mcq

- What will happen, with the increase in speed of a DC motor?
  a) Back emf increase but line current falls.
  b) Back emf falls and line current increase.
  c) Both back emf as well as line current increase.
  d) Both back emf as well as line current fall.
- The current drawn by the armature of DC motor is directly proportional to _____
  a) Torque
  b) Speed
  c) The voltage across the terminals
  d) Cannot be determined

- What will happen if the back emf of a DC motor vanishes suddenly?
  a) The motor will stop
  b) The motor will continue to run
  c) The armature may burn
  d) The motor will run noisy
- Direction of rotation of motor is determined by _____
  a) Faraday's law
  b) Lenz's law
  c) Coulomb's law
  d) Fleming's left-hand rule

- The field of an induction motor rotor rotates relative to the stator at
  a) Rotor speed
  b) Synchronous speed
  c) Slip speed
  d) Very low speed
- Starters are used in induction motor because a) Its starting torque is high
  b) It is run against heavy load
  c) It can not run in reverse direction
  d) Its starting current is five times or more than its rated current

- The synchronous speed of an induction motor is defined as
- a) Natural speed at which a magnetic field rotates
  b) The speed of a synchronous motor
  c) The speed of an induction motor at no load
  d) None of these
- Squirrel cage induction motor has
- a) Zero starting torque
  b) Very small starting torque
  c) Medium starting torque
  d) Very high starting torque

- The speed of a three-phase cage-rotor induction motor depends on a) Number of pole alone
  b) Frequency of the supply alone
  c) Input voltage
  d) Number of poles and frequency of supply
- In which of the following application DC series motor is used?

1. Centrifugal Pump
2. Motor Operation in DC and AC
3. Water pump drive
4. Starter for car

- A three-point starter is suitable for

1. Shunt Motor
2. Series Motor
3. Shunt & Compound Motor
4. Shunt, Series, and compound motor

- Nowadays DC motor is widely used in

1. Electric Traction
2. Air compressor
3. Centrifugal Pump
4. Machine shop

- By looking at which particular part of the motor we can Identify a **“DC motor”**?

1. Shaft
2. Field winding
3. Commutator
4. Armature winding

- Which of the following DC motor have the tendency of load instablity?

1. Cumulative compound motor
2. Shunt Motor
3. Series motor
4. Differentially compound motor

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- The reason for using starter while starting of DC motor is

1. To restrict armature current as there is no back E.M.F at starting
2. Motors are not self-starting
3. Restrict starting torque
4. None of the above

- Which of the following application requires high starting torque?

1. Air blower
2. Elevator
3. Locomotive
4. Centrifugal Pump

- Which DC motor is used for conveyor?

1. Series motor
2. Cumulative compound motor
3. Differentially compound motor
4. Shunt motor

- What will happen when the D.C motor is connected to A.C supply then?

1. D.C motor will run at rated speed
2. D.C motor will burn
3. D.C motor will run at slow speed
4. Both 2 & 3.

- Which D.C motor is preferred for machine tools?

1. Series motor
2. Cumulative compound motor
3. Differentially compound motor
4. Shunt motor

- Which DC motor is preferred for crane and hoist?

1. Series motor
2. Cumulative compound motor
3. Shunt motor
4. Differentially compound motor