

- Q.26 Explain the working of shaded pole motor.
- Q.27 What is significance of back e.m.f?
- Q.28 Explain CT and PT.
- Q.29 State the function of damper windings in synchronous motor.
- Q.30 Explain Lenz's law.
- Q.31 Differentiate between star and delta system.
- Q.32 Necessity of starter for a D.C motor.
- Q.33 What are the Fleming's left hand rule?
- Q.34 Explain the construction of 3-phase induction motor.
- Q.35 Explain dc compound motor.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Explain the methods of speed control of universal motor.
- Q.37 Explain working of a 3 point dc shunt motor starter.
- Q.38 Describe the construction and working of current and potential transformer.

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3rd Sem / Eltx, EI, IC, Medical Eltx(5th Sem)

Power Eltx, Elect. & Eltx. Engg.

Subject:- Electrical Machines

Time : 3Hrs.

M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Phase sequence of a three phase system is the sequence in which:
- various phases are named
 - various phases are numbered
 - various phases attain their max value
 - none of these
- Q.2 Two wattmeter used to measure power in a three phase system read W_1 & W_2 respectively. Total power will be
- $W_1 - W_2$
 - $W_1 + W_2$
 - $W_1 \cdot W_2$
 - W_1 / W_2
- Q.3 Power drawn by a transformer on no load is required to meet mainly:
- copper losses
 - iron losses
 - rotational losses
 - load losses
- Q.4 Copper losses in transformer on load are proportional to
- load current

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- b) Square of load current
 - c) no load current
 - d) all of above
- Q.5 An electromechanical energy conversion device is a machine which converts
- a) mechanical into electrical
 - b) electrical into mechanical
 - c) electrical into mechanical & vise-versa
 - d) none of these
- Q.6 Which dc motor is best suited for electric traction?
- a) shunt motor
 - b) cummulative compound motor
 - c) differential compound motor
 - d) series motor
- Q.7 Number of parallel paths in a 6 pole wave wound armature of dc machine is
- a) 6
 - b) 3
 - c) 2
 - d) 12
- Q.8 A dc series motor is suited for driving a
- a) Lathe
 - b) Machine tool
 - c) Crane
 - d) Constant speed load
- Q.9 The relative speed of stator flux of an induction motor is zero w.r.t.
- a) Statorwinding
 - b) rotor
 - c) rotor flux
 - d) Space
- Q.10 Synchronous speed of induction motor depends upon
- a) Frequency
 - b) No. of stator poles
 - c) Applied voltage
 - d) both a & b

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 What is damper winding?
- Q.12 Define Back emf?
- Q.13 Write the full form of PT.
- Q.14 What is step up transformer?
- Q.15 What is the function of secondary winding?
- Q.16 Define induced E.M.F.
- Q.17 Define generator.
- Q.18 What is electromagnetic induction?
- Q.19 Define brushes of motor.
- Q.20 Define Motor.

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Derive the relation between phase and line voltage in three phase system.
- Q.22 Explain three wattmeter method.
- Q.23 State Faraday's laws of electromagnetic induction.
- Q.24 Explain losses of transformer.
- Q.25 Describe construction and working of a three phase induction motor.