

- 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:
 a) various phases are named
 b) various phases are numbered
 c) various phases attain their max value
 d) 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
 a) $W_1 - W_2$ b) $W_1 + W_2$
 c) $W_1 \cdot W_2$ d) W_1/W_2
- Q.3 Power drawn by a transformer on no load is required to meet mainly:
 a) copper losses b) iron losses
 c) rotational losses d) load losses
- Q.4 Copper losses in transformer on load are proportional to
 a) load current

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.