

SUB- EC-II

ASSIGNMENT- 01

ALTERNATOR

1. Write the advantages of short pitch winding over full pitch winding.
2. What is the purpose of damper winding in alternator.
3. State the advantages of stationary armature in alternator.
4. Define voltage regulation of an alternator.
5. What is armature reaction in an alternator. explain briefly for different power factor.
6. Why parallel operation of alternator is needed.
7. Derive expression for distribution factor of an alternator.
8. Differentiate between salient pole rotor and cylindrical rotor.

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ASSIGNMENT- 02

Synchronous motor

- 1.Explain the working principle of synchronous motor
- 2.State the application of synchronous motor.
- 3.Justify that why synchronous motor is a doubly excited machine.
- 4.State the characteristics of synchronous motor
- 5.Write a short note on humming.
6. Explain the effect of change of excitation of a synchronous motor driving a constant load.
- 7.Explain the V-curve in synchronous motor.
- 8.Synchronous motor is not self-starting explain

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ASSIGNMENT- 03

3 phase Induction motor

1. Write a short notes on plugging
2. Describe the power flow stage of 3 phase induction motor
3. Give the reason of skewing of rotor slot in induction motor.
4. Derive an expression of starting torque in 3 phase induction motor and also find the condition for maximum starting torque.
5. Write a short notes on induction generator
6. Explain how 3 phase supply produced a rotating magnetic field.
7. Derive a condition for maximum starting torque at running condition.

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ASSIGNMENT- 04

Single phase induction motor

1. Describe why single phase induction motor is not self starting.
2. Explain double field revolving theory
3. Explain torque slip characteristics of single phase induction motor.
4. Write a short notes on.
 - (a) Shaded pole motor
 - (b) Split phase motor
 - (c) Capacitor start -run motor.

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ASSIGNMENT- 05

Commutator motor

- 1.Explain working principle and construction of repulsion motor.
2. Write a short notes on universal motor.

