

UNIT-4

Electrical Machines

Part – A (Short Answer Questions)					
1		What are the advantages of three phase motor over single phase motor?	BT1	CO4	PO1
2		What are the advantages of induction motor?	BT2	CO4	PO2
3		What happens when induction motor run at synchronous speed?	BT2	CO4	PO2
4		What is synchronous speed?	BT2	CO4	PO2
5		Draw the equivalent circuit of induction motor.	BT2	CO4	PO3
6		Describe the methods of starting of three phase induction motor?	BT1	CO4	PO2
7		What is direct-on-line starting of induction motor?	BT2	CO4	PO2
8		What are the advantages of slip ring induction motor over squirrel cage motor?	BT2	CO4	PO2
9		Why can not three phase induction motor run at synchronous speed?	BT1	CO4	PO1
10		Define voltage regulation of alternator.	BT2	CO4	PO2
Part – B (Long Answer Questions)					
11	a)	Explain construction of 3-phase induction motor.	BT2	CO4	PO2
	b)	Explain the working principle of 3-phase induction motor.	BT1	CO4	PO2
12	a)	Explain the construction, working principle of single phase Induction motor.	BT2	CO4	PO2
	b)	Define significance of torque slip characteristics of 3-phase induction motor.	BT2	CO4	PO3
13	a)	Explain speed control of induction motor.	BT2	CO4	PO2
	b)	Explain different methods of starting of squirrel cage induction motor.	BT2	CO4	PO3
14	a)	Explain torque, full load torque, starting torque and no load torque.	BT1	CO4	PO2
	b)	State starting methods of three phase induction motor and explain any of them in details.	BT1	CO4	PO2
15	a)	Explain equivalent circuit for single phase induction motor.	BT1	CO4	PO2
	b)	Explain working of double cage induction motor and its equivalent circuit.	BT1	CO4	PO2
16	a)	Derive the EMF equation for the alternator?	BT1	CO4	PO2
	b)	Explain construction and working of synchronous generator.		CO4	PO2