SYNERGY POLYTECHNIC, BBSR

The Lesson Plan

Descipline: EE	Semester: 5/5 (EE)	Name of the Teaching Faculty: Er. D. D. Sahu
Subject: EC-II	No of Days/per week class allotted:	Semester from Date: 15/9/22 to Date: 22/12/22. No of Weeks:

Week	Class Day		Theory/Practical Topics
1st	1st	31/X/22	Method of Starting of Sy. Motor.
	2nd	1/XI/22	Application of Sy. Motor
	3rd	2/11/22	Introduction of the Motors, Production of rotating magnetic field.
	4th	3/11/22	construction of I/M. (Sq. cage & slip ring) working principle.
	5th		
2nd	1st	5/11/22	Difination of slip, slip speed, relation of slip with rotor quantities.
	2nd	7/11/22	Derivation of torque, at starting & running condition.
	3rd	9/11/22	Derivation of Max torque, solving problem
	4th	10/11/22	Torque slip charracterictics.
	5th		
3rd	1st	12/11/22	Relation between full load torque & starting torque, solving problem.
	2nd	14/11/22	Establichment of relationship between rotor Cu loss, rotor o/p etc.
	3rd	15/11/22	Gross Torque. Relationship of slip with rotor Cu loss. Problem solving.
	4th	16/11/22	Method of starting & different types of starter for 3-φ I/M.
	5th		
4th	1st	17/11/22	Speed control by voltage control, Rotor resistance control.
	2nd	21/11/22	Pole changing, frequency control method
	3rd	22/11/22	Plugging of 3-φ I/M.
	4th	23/11/22	different types of motor enclosed principle of Induction Gen & its application
	5th		
5th	1st	24/11/22	Explanation of Ferrari's principle, double revolving field Theory & cross field theory
	2nd	26/11/22	used for starting of 1-φ I/M.
	3rd	28/11/22	Explanation of working principle, Torque-Speed characteristic, performance
	4th	29/11/22	Charactericts & application of split phase motor, Capacitor start motor
	5th		

14/9/22

Sign of Faculty HOD Principal

SYNERGY POLYTECHNIC, BBSR

The Lesson Plan

Descipline:	Semester:	Name of the Teaching Faculty: Er. D.D. Sahu
Subject:	No of Days/per week class allotted:	Semester from Date: 15/9/22 to Date: 22/12/22 No of Weeks:
Week	Class Day	Theory/Practical Topics
1st	1st 30/11/22	Capacitor Start, Capacitor run motor. Permanent capacitor type motor.
	2nd 01/12/22	Shaded pole motor, method to change direction of rotation.
	3rd 03/12/22	Construction, working principle & applicatio of 1-φ Series motor.
	4th 5/12/22	Construction, working principle & application of 1-φ Universal Motor.
	5th	
2nd	1st 6/12/22	working principle of Repulsion Start motor, Repulsion Start Induction run
	2nd 7/12/22	motor, Repulsion I/M.
	3rd 8/12/22	Principle of Stepper motor, classification
	4th 12/12/22	Principle of variable reluctant stepper motor " " Permanent magnet stepper motor
	5th	
3rd	1st 13/12/22	Principle of hybrid stepper motor
	2nd 14/12/22	Application of Stepper motor
	3rd 15/12/22	Parallel operation of 3-φ transformer
	4th 19/12/22	Phase grouping of 3-φ transformer &
	5th 20/12/22	its advantages
4th	1st 21/12/22	Explain Tap changer (ON/OFF load tap
	2nd 22/12/22	ching); Maintenance Shedule of Power Tr
	3rd 26/12/22	Revision of 3-φ I/M.
	4th 27/12/22	Revision of Alternator
	5th 28/12/22	Revision of Syn. Motor.
5th	1st	
	2nd	
	3rd	
	4th	
	5th	

Sahu 14/9/22

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SYNERGY POLYTECHNIC, BBSR ①

The Lesson Plan

Descipline: Electrical Engg	Semester: 5th Sem.	Name of the Teaching Faculty: Er. D. D. Sahu.
Subject: EC-II	No of Days/per week class allotted: 04.	Semester from Date: 15/9/22 to Date: 22/12/22 No of Weeks: 14

Week	Class Day		Theory/Practical Topics
1st	1st	19/9/22	Introduction, Constructional details of Alt. types of alternator.
	2nd	20/9/22	Basic working principle of alternator & relation between speed & frequency
	3rd	21/9/22	Voltage generation.
	4th	22/9/22	Armature winding., chording of arm
	5th	23/9/22	Advantages of fractional Pitch winding.
2nd	1st	26/9/22	Distribution factor. solving problems.
	2nd	27/9/22	Derivation of EMF equation & Solving of. Numerical problem.
	3rd	28/9/22	Explanation of Arm. reaction & its
	4th	29/9/22	effect on emf at different p.f of load.
	5th		
3rd	1st	10/X/22	Drawing of Vector diagram of loaded ~~alt~~ alternator & solving problem.
	2nd	11/X/22	Explain Open circuit Test & Short ckt test
	3rd	12/X/22	Determination of voltage regulation of Alternator by direct loading & solving problem
	4th	13/X/22	By. Synchronous impedance method & to solve numerical problem.
	5th		
4th	1st	14/X/22	Parallel operation of alternator by Synchro-Scope method dark & bright lamp method.
	2nd	17/X/22	Distribution of load by 1¢ connected Alt.
	3rd	18/X/22	construction & working principle of Sy. Motor concept of load angle
	4th	19/X/22	Derivation of Torque & power developed.
	5th	20/X/22	Effect of varying load with constant excitation.
5th	1st	25/X/22	Effect of varying excitation with const. load.
	2nd	26/X/22	Power angle characteristic of Cylindrical rotor motor.
	3rd	27/X/22	Explanation of effect of excitation on Arm. Ct & power factor.
	4th	28/X/22	Hunting in Syn. machine & function of Damper Bars.
	5th		

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