lesson Plan

Name of the F **Anil kumar**
Discipline **Instrumentation and control**
Semester **3rd**
Subject **Electrical Machines**
Lesson Plan Duration : 15 weeks(from Aug to Dec 2024)
Work Load (lecture/practical)per week (in hours) : Lectures- 03, Practical- 02

Week		**Theory**		**Practicals**
	Lecture Day	**Topic (inculding assignment/test)**	**Practical week**	**Topic**
1st	1st	Brief introduction about subject and syllabus	1st	To measure power and power factors in 3 Phase load by two
	2nd	Principle of operation and constructional details of single phase transformer		
	3rd	Losses in a transformer Efficiency, condition for maximum efficiency and all day efficiency		
2nd	4th	revised previous topics	2	To determine the efficiency of a single phase transformer
	5th	CTs and PTs (Current transformer and potential transformer)		
	6th	CTs and PTs (Current transformer and potential transformer)		
3rd	7th	feedback from students	3	To measure power and power factor of a single phase
	8th	revision		
	9th	E.M.F induced in a coil rotating in a magnetic field.		
4th	10th	Definition of motor and generator	4	To run a synchronous motor with a.c supply and to
	11th	Basic principle of a generator and a motor		
	12th	Torque due to alignment of two magnetic fields and the concept of Torque angle		

5th	13th	Basic Electromagnetic laws (Faraday's laws of Electromagnetic Induction)	5	practicals revisions
	14th	Principle of working of d.c motors and d.c generator, their constructional details		
	15th	Function of the Commutator for motoring and generating action		viva voice of
6th	16th	Revision	6	To make
	17th	Factors determining the speed of a DC motor		connections of
	18th	Different types of excitation		starting and running
7th	19th	Starting of DC motors and starters	7	To connect a dc
	20th	Revolving magnetic field produced by poly phase supply		shunt motor with
	21st	Construction and working principle of single phase induction motor		supply through 3 -
8th	22nd	feedback from students	8	Study construction of
	23rd	Brief introduction about three phase induction motors, its principle of operation		a stepper and
	24th	Construction, Working Principle and applications of Single phase Synchronous Motor		servomotor and to
9th	25th	Brief introduction about three phase Synchronous motors, its principle of operation	9	practicals revisions
	26th	Concept of micro-motors		
	27th	Servo- motors: AC and DC Servo Motors		viva voice of
10th	28th	Stepper Motor: Working Principle and application	10	practicals revisions
	29th	revision		
	30th	revision		viva voice of previous practicals
11th	31st	Class Test	11	All files are checked
	32nd	Class Test		
	33rd	Class Test		All files are checked
12th	34th	Copy checking	12	viva voice of
	35th	Copy checking		previous practicals

	36th	Copy checking		viva voice of previous practicals
13th	37th	Revision	13	viva voice of previous practicals
	38th	Revision		viva voice of previous practicals
	39th	Revision		
14th	40th	Revision	14	viva voice of previous practicals
	41st	Revision		
	42nd	Revision		viva voice of previous practicals
15th	43rd	Revision	15	viva voice of previous practicals
	44th	Revision		
	45th	Copy checking		viva voice of previous practicals