

LESSON PLAN FOR ELECTRICAL MACHINE LAB I [Pr. 1]

Discipline: Electrical Engineering	Semester: 4th	Name of the Teaching Faculty: CHANDRAMANI MAHAPATRA
Subject: ELECTRICAL MACHINE LAB I	No. of days/ per week class allotted: 6	Semester From Date : 10/03/2022 to Date: 10/06/2022 No. of Weeks: 13
Week	3 Class/ Day	Theory/ Practical Topics
1st	1st	1. Identification of different terminals of a DC machine by test lamp method and multi-meter method & to measure insulation resistance by megger.
	2nd	1. Identification of different terminals of a DC machine by test lamp method and multi-meter method & to measure insulation resistance by megger. [CONT.]
2nd	1st	2. Dimensional and material study of various parts of a DC machine.
	2nd	2. Dimensional and material study of various parts of a DC machine.[CONT.]
3rd	1st	3. Plot OCC of a DC shunt generator at constant speed and determine critical resistance from the graph.
	2nd	3. Plot OCC of a DC shunt generator at constant speed and determine critical resistance from the graph.[CONT.]
4th	1st	4. Plot External Characteristics of a DC shunt generator at constant speed.
	2nd	4. Plot External Characteristics of a DC shunt generator at constant speed. [CONT.]
5th	1st	5. Study of Three point starter, connect and run a DC shunt motor & measure the no load current.
	2nd	5. Study of Three point starter, connect and run a DC shunt motor & measure the no load current. [CONT.]
6th	1st	6. Study of Four point starter, connect and run a DC compound motor & measure no load current.
	2nd	6. Study of Four point starter, connect and run a DC compound motor & measure no load current. [CONT.]
7th	1st	7. Control the speed of a DC shunt motor by field flux control method & armature voltage control method.
	2nd	7. Control the speed of a DC shunt motor by field flux control method & armature voltage control method. [CONT.]
8th	1st	8. Determine the armature current vs. speed characteristic of a DC motor. [CONT.]
	2nd	8. Determine the armature current vs. speed characteristic of a DC motor. [CONT.]
9th	1st	9. Determine the efficiency of a DC machine by brake test method.
	2nd	9. Determine the efficiency of a DC machine by brake test method.[CONT.]
10th	1st	10. Identification of terminals, determination of voltage transformation ratio of a single phase transformer.

	2nd	10. Identification of terminals, determination of voltage transformation ratio of a single phase transformer.[CONT.]
11th	1st	11. Perform OC Test and SC test of a single phase transformer.
	2nd	11. Perform OC Test and SC test of a single phase transformer.[CONT.]
12th	1st	12. Determine the voltage regulation of a single phase transformer at different loads.
	2nd	12. Determine the voltage regulation of a single phase transformer at different loads.[CONT.]
13th	1st	13. Polarity test of single phase transformer and parallel operation of two single phase transformers.
	2nd	13. Polarity test of single phase transformer and parallel operation of two single phase transformers.[CONT.]