GOVERNMENT POLYTECHNIC ,BARGARH

Department Of Electrical Engineering

Semester: 4th. DIPLOMA
Subject: ELECTRICAL MACHINE LAB-I
Branch: Electrical Engineering

Session: SUMMER
No of Period :90 (6p/week)
Name of Faculty: NITESH KU. ACHARYA

WEEK	PERIOD	Topics to be covered
1	1	Demonstration of Experiments of DC Generator
	2	Demonstration of Experiments of DC Generator
2	3	Demonstration of Experiments of DC Generator
	4	Identification of different terminals of a DC machine by test lamp method and multi- meter method & measurement of insulation resistance by megger.
3	5	Dimensional and material study of various parts of a DC machine.
	6	Plotting OCC of a DC shunt generator at constant speed and determination of critical resistance from the graph.
4	7	Plotting External Characteristics of a DC shunt generator at constant speed
	8	Demonstration of Experiments of DC Motor
5	9	Demonstration of Experiments of DC Motor
	10	Demonstration of Experiments of DC Motor
6	11	Study of Three-point starter, connect and run a DC shunt motor & measurement of the no load current.
	12	Study of Four-point starter, connect and run a DC compound motor & measurement of no-load current.
7	13	Controlling the speed of a DC shunt motor by field flux control method
	14	Controlling the speed of a DC shunt motor by armature voltage control method.
8	15	Determination of the armature current vs. speed characteristic of a DC motor.

	16	Determination of the efficiency of a DC machine by brake test method.
9	17	Demonstration of Experiments of single-phase Transformer.
	18	Demonstration of Experiments of single-phase Transformer.
10	19	Demonstration of Experiments of single-phase Transformer.
	20	Identification of terminals, determination of voltage transformation ratio of a single-phase transformer.
11	21	Performance of OC Test of a single-phase transformer
	22	Performance of SC test of a single-phase transformer
12	23	Determination of the voltage regulation of a single-phase transformer at different loads.
	24	Polarity test of single-phase transformer.
13	25	parallel operation of two single phase transformers.
	26	Remedial classes and Virtual Lab
14	27	Remedial classes and Virtual Lab
	28	Comprehensive Viva-Voce
15	29	Comprehensive Viva-Voce
	30	Sessional Exam & Record submission