

LESSON PLAN

SUB: ELECTRICAL MACHINE LAB - I

BRANCH:- ELECTRICAL ENGG.

SEMESTER: 4th

NAME OF FACULTY: NIBEDITA HO



GOVERNMENT POLYTECHNIC, BHADRAK

SESSION:2023-2024

Hod. Electrical-24
13-01-24

HOD (ELECT.)
G.P.BHADRAK

13.01.24
Academic Co-ordinator

Academic Co-ordinator

Principal
13-01-24
Govt. Polytechnic, Bhadrak

Principal
Govt. Polytechnic
Bhadrak

Discipline: Electrical Engg.	Semester: 4 th	Name of the Teaching Faculty : Nibedita Ho (Lect. Electrical Engg.)
Subject: Electrical Machine Lab - I	No. of Days/per week class allotted: 6	Semester from date: 16.01.2024 To Date: 26.04.2024 No. of Weeks:15
Week	Class Day	Theory
1 st	E ₁	Identification of different terminals of a DC machine by test lamp method and multimeter method & to measure insulation resistance by megger.
	E ₂	Identification of different terminals of a DC machine by test lamp method and multimeter method & to measure insulation resistance by megger.
	E ₁	Identification of different terminals of a DC machine by test lamp method and multimeter method & to measure insulation resistance by megger.
	E ₂	Identification of different terminals of a DC machine by test lamp method and multimeter method & to measure insulation resistance by megger.
2 nd	E ₁	Dimensional and material study of various parts of a DC machine.
	E ₂	Dimensional and material study of various parts of a DC machine.
	E ₁	Dimensional and material study of various parts of a DC machine.
	E ₂	Dimensional and material study of various parts of a DC machine.
3 rd	E ₁	Plot OCC of a DC shunt generator at constant speed and determine critical resistance from the graph.
	E ₂	Plot OCC of a DC shunt generator at constant speed and determine critical resistance from the graph.
	E ₁	Plot OCC of a DC shunt generator at constant speed and determine critical resistance from the graph.
	E ₂	Plot OCC of a DC shunt generator at constant speed and determine critical resistance from the graph.
4 th	E ₁	Plot OCC of a DC shunt generator at constant speed and determine critical resistance from the graph.
	E ₂	Plot OCC of a DC shunt generator at constant speed and determine critical resistance from the graph.
	E ₁	Plot OCC of a DC shunt generator at constant speed and determine critical resistance from the graph.
	E ₂	Plot OCC of a DC shunt generator at constant speed and determine critical resistance from the graph.

	E₂	critical resistance from the graph.
	E₁	Plot External Characteristics of a DC shunt generator at constant speed.
	E₂	Plot External Characteristics of a DC shunt generator at constant speed.
5 th	E₁	Plot External Characteristics of a DC shunt generator at constant speed.
	E₂	Plot External Characteristics of a DC shunt generator at constant speed.
	E₁	Study of Three point starter, connect and run a DC shunt motor & measure the no load current.
	E₂	Study of Three point starter, connect and run a DC shunt motor & measure the no load current.
6 th	E₁	Study of Three point starter, connect and run a DC shunt motor & measure the no load current.
	E₂	Study of Three point starter, connect and run a DC shunt motor & measure the no load current.
	E₁	Study of Four point starter, connect and run a DC compound motor & measure no load current.
	E₂	Study of Four point starter, connect and run a DC compound motor & measure no load current.
7 th	E₁	Study of Four point starter, connect and run a DC compound motor & measure no load current.
	E₂	Study of Four point starter, connect and run a DC compound motor & measure no load current.
	E₁	Control the speed of a DC shunt motor by field flux control method & armature voltage control method.

8 th	E ₂	Control the speed of a DC shunt motor by field flux control method & armature voltage control method.
	E ₁	Control the speed of a DC shunt motor by field flux control method & armature voltage control method.
	E ₂	Control the speed of a DC shunt motor by field flux control method & armature voltage control method.
9 th	E ₁	Determine the armature current vs. speed characteristic of a DC motor.
	E ₂	Determine the armature current vs. speed characteristic of a DC motor.
	E ₁	Determine the armature current vs. speed characteristic of a DC motor.
10 th	E ₂	Determine the armature current vs. speed characteristic of a DC motor.
	E ₁	Determine the efficiency of a DC machine by brake test method.
	E ₂	Determine the efficiency of a DC machine by brake test method.
11 th	E ₁	Determine the efficiency of a DC machine by brake test method.
	E ₂	Determine the efficiency of a DC machine by brake test method.
	E ₁	Determine the efficiency of a DC machine by brake test method.
11 th	E ₁	Identification of terminals, determination of voltage transformation ratio of a single phase transformer.
	E ₂	Identification of terminals, determination of voltage transformation ratio of a single phase transformer.
	E ₂	Identification of terminals, determination of voltage transformation ratio of a single phase transformer.

12 th	E_1	Perform OC Test and SC test of a single phase transformer.
	E_2	Perform OC Test and SC test of a single phase transformer.
	E_1	Perform OC Test and SC test of a single phase transformer.
	E_2	Perform OC Test and SC test of a single phase transformer.
13 th	E_1	Perform OC Test and SC test of a single phase transformer.
	E_2	Perform OC Test and SC test of a single phase transformer.
	E_1	Perform OC Test and SC test of a single phase transformer.
	E_2	Perform OC Test and SC test of a single phase transformer.
14 th	E_1	Determine the voltage regulation of a single phase transformer at different loads.
	E_2	Determine the voltage regulation of a single phase transformer at different loads.
	E_1	Determine the voltage regulation of a single phase transformer at different loads.
	E_2	Determine the voltage regulation of a single phase transformer at different loads.
15 th	E_1	Polarity test of single phase transformer and parallel operation of two single phase transformers.
	E_2	Polarity test of single phase transformer and parallel operation of two single phase transformers.
	E_1	Polarity test of single phase transformer and parallel operation of two single phase transformers.
	E_2	Polarity test of single phase transformer and parallel operation of two single phase transformers.



 Signature of Faculty

Lect. in Elect. Engg.
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