

LESSON PLAN

SUB: DC Machines & Transformers Lab

BRANCH:- ELECTRICAL ENGG.

SEMESTER: 3rd

NAME OF FACULTY: - ABHIPSA DUTTA



**GOVERNMENT POLYTECHNIC,
BHADRAK**

SESSION:2025-26

Hod Electrical
11/8/25

HOD (ELECT.)
G.P.BHADRAK

Academic Co-ordinator
11/8/25

Academic Co-ordinator

Principal
Govt. Polytechnic Bhadrak
11/8/25

Principal
Govt Polytechnic
Bhadrak

DISCIPLINE: ELECTRICAL ENGG.	SEMESTER: 3rd	NAME OF THE TEACHING FACULTY: ABHIPSA DUTTA (Lect. S-II in Elect. Engg.)
SUBJECT : DC Machines & Transformers Lab	NO. OF DAYS/Week CLASS ALLOTTED – 60Hr (4P/week)	SEMESTER FROM DATE : 14.07.2025 to 15.11.2025
Week	Section	List of experiments
1 st	E ₁ /E ₂	Introduction to Machines and its components.
2 nd	E ₁ /E ₂	Dismantle a DC machine.
3 rd	E ₁ /E ₂	Reverse the direction of rotation of the DC shunt motor.
4 th	E ₁ /E ₂	Control the speed of DC shunt motor by field flux and armature voltage control methods.
5 th	E ₁ /E ₂	Perform the brake test on DC series motor.
6 th	E ₁ /E ₂	Check the functioning of single phase transformer.
7 th	E ₁ /E ₂	Determine regulation and efficiency of single phase transformer by direct loading
8 th	E ₁ /E ₂	Perform open circuit and short circuit test on single phase transformer to determine equivalent circuit constants, voltage regulation and efficiency.
9 th	E ₁ /E ₂	Perform parallel operation of two single-phase transformers to determine the load current sharing.
10 th	E ₁ /E ₂	Perform polarity test on a single-phase transformer whose polarity markings are masked.
11 th	E ₁ /E ₂	Connect the autotransformer in step-up and step-down modes noting the input/output readings.
12 th	E ₁ /E ₂	Remedial classes for students
13 th	E ₁ /E ₂	Remedial classes for students
14 th	E ₁ /E ₂	Remedial classes for students
15 th	E ₁ /E ₂	Remedial classes for students

Abhipsa Dutta

SIGNATURE OF FACULTY

**Lect.in Elect.Engg.
Govt.Poly.Bhadrak**