

LESSON PLAN

SUB: FUNDAMENTALS OF ELECTRICAL & ELECTRONICS ENGG.

BRANCH:- MECHANICAL ENGG.

SEMESTER: 2ND

NAME OF FACULTY: UMESH KUMAR DALAI



**GOVERNMENT POLYTECHNIC,
BHADRAK**

SESSION:2025-26

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Humanities & Sciences
H.O.D.

Humanities & Sciences
Govt. Polytechnic, Bhadrak

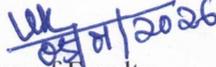
Umesh Kumar Dalai
Academic Co-ordinator

Academic Co-ordinator

[Signature]
Principal
Govt. Polytechnic, Bhadrak
Principal
Govt. Polytechnic, Bhadrak

Discipline: Mechanical Engg.	Semester: 2 ND	Name of the Teaching Faculty : UMESH KUMAR DALAI
Subject: Fundamentals of Electrical & Electronics Engg. Lab	No. of Days/per week class allotted:4	Semester from date: 09.01.2026 to 08.05.2026 No. of Weeks:15
Week	Class Day	Theory
1 st	1 st	Determine the permeability of magnetic material by plotting its B-H curve
	2 nd	Determine the permeability of magnetic material by plotting its B-H curve
2 nd	1 st	Measure voltage, current and power in 1-phase circuit with resistive load
	2 nd	Measure voltage, current and power in 1-phase circuit with resistive load
3 rd	1 st	Measure voltage, current and power in R-L series circuit
	2 nd	Measure voltage, current and power in R-L series circuit
4 th	1 st	Determine the transformation ratio(K) of 1-phase transformer
	2 nd	Determine the transformation ratio(K) of 1-phase transformer
5 th	1 st	Connect single phase transformer and measure input and output quantities
	2 nd	Connect single phase transformer and measure input and output quantities
6 th	1 st	Make Star and Delta connection in starter to run induction motor
	2 nd	Make Star and Delta connection in starter to run induction motor
7 th	1 st	Identify various passive and active electronics components
	2 nd	Identify various passive and active electronics components
8 th	1 st	Connect resistors in series and parallel combination and measure its value using digital multimeter
	2 nd	Connect resistors in series and parallel combination and measure its value using digital multimeter
9 th	1 st	Connect capacitors in series and parallel combination and measure its value using multimeter
	2 nd	Connect capacitors in series and parallel combination and measure its value using multimeter
10 th	1 st	Use multimeter to measure the value of given resistor and determine the value to confirm with colour code
	2 nd	Use multimeter to measure the value of given resistor and determine the value to confirm with colour code
11 th	1 st	Test the PN-junction diode and LED using digital multimeter
	2 nd	Test the PN-junction diode and LED using digital multimeter

12 th	1 st	Test the performance of PN-junction diode
	2 nd	Test the performance of PN-junction diode
13 th	1 st	Test the performance of Zener diode
	2 nd	Test the performance of Zener diode
14 th	1 st	Identify three terminals of a transistor using digital multimeter
	2 nd	Identify three terminals of a transistor using digital multimeter
15 th	1 st	Test the performance of NPN transistor
	2 nd	Test the performance of NPN transistor


 Signature of Faculty

Department of
 Electrical Engineering
 Anna University
 Chennai