

# LESSON PLAN

**SUB: FUNDAMENTALS OF ELECTRICAL & ELECTRONICS ENGG. I**

**BRANCH:- TEXTILE ENGG.**

**SEMESTER: 2<sup>ND</sup>**

**NAME OF FACULTY: SUSHANT KUMAR MOHANTY**



**GOVERNMENT POLYTECHNIC,  
BHADRAK**

**SESSION:2025-26**

Hod,

*Dakata*  
07/11/2024

**HOD,**

**Humanities & Sciences**  
Govt. Polytechnic, Bhadrak

Academic Co-ordinator

*[Signature]*

**Academic Co-ordinator**

Principal

Govt. Polytechnic, Bhadrak  
**Principal**  
Govt. Polytechnic, Bhadrak

Discipline: Textile Engg.	Semester: 2 <sup>ND</sup>	Name of the Teaching Faculty : SUSHANT KUMAR MOHANTY
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 <sup>st</sup>	1 <sup>st</sup>	Determine the permeability of magnetic material by plotting its B-H curve
	2 <sup>nd</sup>	Determine the permeability of magnetic material by plotting its B-H curve
2 <sup>nd</sup>	1 <sup>st</sup>	Measure voltage, current and power in 1-phase circuit with resistive load
	2 <sup>nd</sup>	Measure voltage, current and power in 1-phase circuit with resistive load
3 <sup>rd</sup>	1 <sup>st</sup>	Measure voltage, current and power in R-L series circuit
	2 <sup>nd</sup>	Measure voltage, current and power in R-L series circuit
4 <sup>th</sup>	1 <sup>st</sup>	Determine the transformation ratio(K) of 1-phase transformer
	2 <sup>nd</sup>	Determine the transformation ratio(K) of 1-phase transformer
5 <sup>th</sup>	1 <sup>st</sup>	Connect single phase transformer and measure input and output quantities
	2 <sup>nd</sup>	Connect single phase transformer and measure input and output quantities
6 <sup>th</sup>	1 <sup>st</sup>	Make Star and Delta connection in starter to run induction motor
	2 <sup>nd</sup>	Make Star and Delta connection in starter to run induction motor
7 <sup>th</sup>	1 <sup>st</sup>	Identify various passive and active electronics components
	2 <sup>nd</sup>	Identify various passive and active electronics components
8 <sup>th</sup>	1 <sup>st</sup>	Connect resistors in series and parallel combination and measure its value using digital multimeter
	2 <sup>nd</sup>	Connect resistors in series and parallel combination and measure its value using digital multimeter
9 <sup>th</sup>	1 <sup>st</sup>	Connect capacitors in series and parallel combination and measure its value using multimeter
	2 <sup>nd</sup>	Connect capacitors in series and parallel combination and measure its value using multimeter
10 <sup>th</sup>	1 <sup>st</sup>	Use multimeter to measure the value of given resistor and determine the value to confirm with colour code
	2 <sup>nd</sup>	Use multimeter to measure the value of given resistor and determine the value to confirm with colour code
11 <sup>th</sup>	1 <sup>st</sup>	Test the PN-junction diode and LED using digital multimeter
	2 <sup>nd</sup>	Test the PN-junction diode and LED using digital multimeter

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

*Sushant Kumar Mohanty*  
Signature of Faculty 19/12/25