LESSON PLAN

SUBJECT: - APPLIED PHYSICS – II (LAB)

BRANCH: - COMMON (ELECTRICAL & COMP. SC.)

SEMESTER: - 2nd (2024-2025)

NAME OF THE FACULTY: - JYOTIRMAYEE DASH

GOVERNMENT POLYTECHNIC, BHADRAK

02-02-25

HOD, Math& Sc

2/2/25

Academic Coordinator

Academic Co-ordinator

2.2.25

Principal

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LESSON PLAN FOR SUMMER SEMESTER- 2025

Dept. of Math & Science, Govt. Polytechnic, Bhadrak

Name of the Faculty: Jyotirmayee Dash
Course Code: Pr – 2
Theory: APPLIED. PHY-II (LAB)
Total Periods:30
Examination: SUMMER (2025)
Sem:2nd

Internal assessment/Sessional: 25
End Sem. Exam: 25
Total Mark :50
Class Start:04.02.2025

Discipline: Electrical & Comp. Sc.	**Semester:2nd (2025)**	**Name of the Teaching Faculty: Jyotirmayee Dash**
Subject: APPLIED. PHY-II (LAB)	**No. of Days/per week class allotted:1 days/2 classes**	**Semester from date: 04.02.2025 To Date: 17.05.2025** **No. of Weeks: 15**

Week	Class Day	Practical/ Topics
1ST	1st	• Importance of experimentation and accurate measurement • Instruction of maintaining lab record • Introduction about some instruments
	2nd	• Demonstration to determine and verify the time period of a cantilever
2nd	1st	• Demonstration to determine velocity of ultrasonic in different liquids using ultrasonic interferometer
	2nd	• Demonstration to verify laws of reflection
3rd	1st	• Demonstration to verify laws of refraction
	2nd	• Demonstration to determine the focal length and magnifying power of convex lens
4th	1st	• Demonstration to verify ohm's law
	2nd	• Demonstration to verify laws of resistance in series and parallel combination
5th	1st	• Demonstration to find the frequency of AC main using electrical vibrator
	2nd	• Demonstration to verify Kirchoff's law using electrical circuits

6th	1st	• Demonstration to find the resistance of a galvanometer by half deflection method
	2nd	• Demonstration of conversion of galvanometer into an ammeter and voltmeter
7th	1st	• Demonstration to draw V-I characteristics of semiconductor diode (Ge,Si) and determine its knee voltage
	2nd	• Demonstration to study the dependence of capacitance of a parallel plate capacitor on various factors and determine permittivity of air at a place
8th	1st	Lab practice by the students of group • Alpha -Determine and verify the time period of cantilever • Beta-Verify laws of reflection • Gamma- Verify laws of refraction
	2nd	Lab practice by the students of group • Alpha - Verify laws of reflection • Beta- Verify laws of refraction • Gamma- Determine and verify the time period of cantilever
9th	1st	Lab practice by the students of group • Alpha - Verify laws of refraction • Beta- Determine and verify the time period of cantilever • Gamma- Verify laws of reflection
	2nd	Lab practice by the students of group • Alpha – Determine velocity of ultrasonic in different liquids using ultrasonic interferometer • Beta- Determine the focal length and magnifying power of convex lens • Gamma- Verify ohm's law
10th	1st	Lab practice by the students of group • Alpha – Determine the focal length and magnifying power of convex lens • Beta- Verify ohm's law • Gamma- Determine velocity of ultrasonic in different liquids using ultrasonic interferometer
	2nd	Lab practice by the students of group • Alpha - Verify ohm's law

		• Beta- Determine velocity of ultrasonic in different liquids using ultrasonic interferometer • Gamma- Determine the focal length and magnifying power of convex lens
11th	1st	Lab practice by the students of group • Alpha – Verify laws of resistance in series and parallel combination • Beta- Verify Kirchoff's law using electrical circuits • Gamma- Find the resistance of galvanometer by half deflection method
	2nd	Lab practice by the students of group • Alpha – Verify Kirchoff's law using electrical circuits • Beta- Find the resistance of galvanometer by half deflection method • Gamma- Verify laws of resistance in series and parallel combination
12th	1st	Lab practice by the students of group • Alpha – Find the resistance of galvanometer by half deflection method • Beta- Verify laws of resistance in series and parallel combination • Gamma- Verify Kirchoff's law using electrical circuits
	2nd	• Re-practice on the basis of necessity • Record correction
13th	1st	Lab practice by the students of group • Alpha – Find the frequency of Ac main using electrical vibrator • Beta- Convert galvanometer into an ammeter and voltmeter • Gamma- Draw V-I characteristics of semiconductor diode (Ge, Si) and determine its knee voltage
	2nd	Lab practice by the students of group • Alpha – Convert galvanometer into an ammeter and voltmeter • Beta - Draw V-I characteristics of semiconductor diode (Ge, Si) and determine its knee voltage

		• Gamma - Find the frequency of Ac main using electrical vibrator
14th	1st	Lab practice by the students of group • Alpha – Draw V-I characteristics of semiconductor diode (Ge, Si) and determine its knee voltage • Beta - Find the frequency of Ac main using electrical vibrator • Gamma- Convert galvanometer into an ammeter and voltmeter
	2nd	• Lab practice by the students • Record correction
15th	1st	• Record checking and viva
	2nd	• Record checking and viva

02/02/2025.

SIGNATURE OF THE FACULTY: