

GOVERNMENT POLYTECHNIC, JAJPUR

A/P: Ragadi, Block: Korei, Dist.: Jajpur, Odisha-755019

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Discipline: Math and science	Semester: 2nd	Name of the Faculty: Miss Prasanna Pattanayak	
Subject: Applied Physics-II Lab	No of Days/Week Class allotted: 2	From:09/01/2026	To:08/05/2026 No. of week:15
Week	Class Day	Topic	
1st	1st	Demonstration & Reading: To determine and verify the time period of a cantilever.	
2nd	2nd	Calculation & Conclusion: To determine and verify the time period of a cantilever.	
		Demonstration & Reading: To determine velocity of ultrasonic in different liquids using ultrasonic interferometer.	
3rd	3rd	Calculation & Conclusion: To determine velocity of ultrasonic in different liquids using ultrasonic interferometer.	
4th	4th	Demonstration & Reading: To verify laws of reflection from a plane mirror/ interface.	
5th	5th	Calculation & Conclusion: To verify laws of reflection from a plane mirror/ interface.	
		Demonstration & Reading: To verify laws of refraction (Snell's law) using a glass slab.	
6th	6th	Calculation & Conclusion: To verify laws of refraction (Snell's law) using a glass slab.	
7th	7th	Demonstration & Reading: To determine focal length and magnifying power of a convex lens.	
8th	8th	Calculation & Conclusion: To determine focal length and magnifying power of a convex lens.	
		Demonstration & Reading: To verify Ohm's law by plotting graph between current and potential difference.	
9th	9th	Calculation & Conclusion: To verify Ohm's law by plotting graph between current and potential difference.	
10th	10th	Demonstration & Reading: To verify laws of resistances in series and parallel combination.	
11th	11th	Calculation & Conclusion: To verify laws of resistances in series and parallel combination.	
		Demonstration & Reading: To verify Kirchhoff's law using electric circuits.	
12th	12th	Calculation & Conclusion: To verify Kirchhoff's law using electric circuits.	
13th	13th	Demonstration & Reading: To verify inverse square law of radiations using a photo-electric cell.	
14th	14th	Calculation & Conclusion: To verify inverse square law of radiations using a photo-electric cell.	
		Demonstration & Reading: To draw V-I characteristics of a semiconductor diode (Ge, Si) and determine its knee voltage.	
15th	15th	Calculation & Conclusion: To draw V-I characteristics of a semiconductor diode (Ge, Si) and determine its knee voltage.	

References/Suggested Learning Resources:**Books Recommended:**

1. Applied Physics-I by Prof. Vinod Kumar Yadav (Download from <https://ekumbh.aicte-india.org/dbook.php>)
2. Text Book of Physics for Class XI& XII (Part-I, Part-II); N.C.E.R.T., Delhi
3. Comprehensive Practical Physics, Vol, I & II, JN Jaiswal, Laxmi Publications (P) Ltd., New Delhi
4. Practical Physics by C. L. Arora, S. Chand & Company Ltd.
5. e-books/e-tools/ learning physics software/you Tube videos/ websites etc.

Prasanna Pattanayak
Signature of the faculty
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06/01/26