

GOVERNMENT POLYTECHNIC, KANDHAMAL
PHULBANI
DEPARTMENT OF MATHEMATICS AND
SCIENCE

APPLIED PHYSICS LAB

Course Code – PR2

(BRANCH : COMMON)

PREPARED BY
ABHAYA PRASADA MOHAPATRA

Lecturer Stage-I in Physics

Syllabus

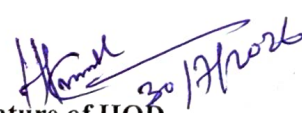
APPLIED PHYSICS LAB		COURSE CODE – PR2	
Period per week:	2	Progressive Assessment:	25 Marks
Total Period	64	End Sem Exam:	25 Marks
Duration of End Exam	2 Hours	No. of Credit	1

S.N.	Period(s)	Experiment
1	1-4	To measure length, radius of a given cylinder, a test tube and a beaker using a Vernier caliper and find volume of each object
2	5-8	To determine diameter of a wire, a solid ball and thickness of card board using a screw gauge
3	9-12	To determine radius of curvature of a convex and a concave mirror/surface using a spherometer
4	13-16	To verify triangle and parallelogram law of forces
5	17-20	To determine spring constant of a spring using Hooke's Law
6	21-24	To find Moment of Inertia of a fly wheel
7	25-28	To verify laws of reflection from a plane mirror/interface
8	29-32	To verify laws of refraction (Snell's law) using a glass slab.
9	33-36	To verify ohm's law plotting graph between current and potential difference
10	37-40	To verify laws of resistance in series and parallel combination
11	41-44	To verify Kirchhoff's law using electric circuits
12	45-48	To study the dependence of capacitance of a parallel plate capacitor on various factors and determines permittivity of air at a place
13	49-52	To find resistance of a galvanometer by half deflection method.
14	53-56	To convert a galvanometer into an ammeter
15	57-60	To convert a galvanometer into a voltmeter
16	61-64	To draw V-I characteristics of a semiconductor diode (Ge, Si) and determines its knee voltage.

References:

1. Applied Physics – I and II by Prof. Vinod Kumar Yadav
2. Comprehensive Practical Physics, Vol. I&II, J N Jaiswal, Laxmi Publications(P)Ltd. New Delhi
3. Practical Physics by C.L. Arora, S. Chand & Company Ltd.

Abhaya Prasad Mohapatra
Signature of faculty


Signature of HOD