ENGINEERING PHYSICS LAB

(Common to CE,ME,IT,CSE-AIML,CSE-DS)

Course Code	23BS1152	**Year**	I	**Semester**	I
Course Category	Basic Science	**Branch**	CE	**Course Type**	Lab
Credits	1	**L-T-P**	0-0-2	**Prerequisites**	Nil
Continuous Internal Evaluation:	**30**	**Semester End Evaluation:**	**70**	**Total Marks :**	**100**

Course Outcomes	
Upon successful completion of the course, the student will be able to	
CO1	**Identify** the type of semiconductor using Hall effect and measure the thermal resistivity, energy band gap **[L3].**
CO2	**Apply** resonance to estimate the frequency of a tuning fork and verify laws of a stretched string **[L3].**
CO3	**Examine** the optical, elastic, and dielectric properties of the given materials. **[L4].**
CO4	**Assess** the intensity of the magnetic field of circular coil carrying current with distance and measure resistance using four probe method **[L4]**

Contribution of Course Outcomes towards achievement of Program Outcomes & Strength of correlations (3:High, 2: Medium, 1:Low)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3												1	
CO2	3												1	
CO3		3											1	
CO4		3											1	

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Exp.No	Contents	Mapped CO
1	Determination of dielectric constant of the various solid samples	**CO3**
2	Determination of wavelength of Laser light using diffraction grating.	**CO3**
3	Determination of the resistivity of semiconductors by four probe methods	**CO4**
4	Determination of energy gap of a semiconductor using p-n junction diode	**CO1**
5	Magnetic field along the axis of a current carrying circular coil by Stewart Gee's Method	**CO4**
6	Determination of Hall voltage and Hall coefficient of a given semiconductor using hall effect	**CO1**
7	Determination of temperature coefficients of a thermistor.	**CO1**

8	Determination of rigidity modulus of the material of the given wire using Torsional pendulum	**CO3**
9	To verify the laws of transverse vibrations of a string using Sonometer.	**CO2**
10	Determination of Frequency of electrically maintained tuning fork by Melde's experiment	**CO2**

Learning Resources
References: • A Textbook of Practical Physics-S.Balasubramanian, M.N.Srinivasan,S.Chand Publishers, 2017
Web Resources • www.vlab.co.in • https://phet.colorado.edu/en/simulations/filter?subjects=physics&type=html,prototype