16BSP101P					University Physics-I Lab					
Teaching Scheme					Examination Scheme					
L	T	P	C	Hrs/Week	Theory			Practical		Total Marks
					MS	ES	IA	LW	Viva	
0	0	2	1	2	-	-	-	50	50	100

COURSE OBJECTIVES

- To understand the working of various electrical, mechanical and optical instruments in the laboratory.
- To gain practical knowledge in Physics through experiments.
- To understand basics concepts of Physics and be able to apply in performing the experiments.

List of Experiments

1. Forced Oscillator
2. Ultrasonic waves
3. Four probe method
4. Heat Pump
5. Thermal expansion
6. Ohm's law
7. Viscosity measurement
8. Diode characteristics
9. 'g' by simple pendulum
10. To find coefficient of friction
11. Introduction of oscilloscope
12. Rectifier
13. Transistor characterisirtics
14. Dielectric constant

** Any 10 experiments will be conducted relevant to theory course.

COURSE OUTCOMES

On completion of the course, the students will be able to

CO1 - Apply and analyze the concepts of electricity and magnetism.
CO2 - understand the various concepts of kinematics.
CO3 - Demonstrate and implement the phenomenon related to waves.
CO4 - Investigate the electrical properties of a given semiconductor device.
CO5 - Examine the heat transfer mechanism in heat pump based devices.
CO6 - Design and analyze the circuits applications based on semiconductor diode.

TEXT/REFERENCE BOOKS

1. Kittel, Knight and Ruderman, Mechanics - Berkeley Physics Course, Vol. 1, Tata McGraw-Hill.
2. Avadhanulu, A text book of engineering Physics, S. Chand & Company, Ltd.
3. Brij Lal, N. Subrahmanyam, Heat and Thermodynamics, S. Chand & Company, Ltd
4. Halliday, Resnick, Walker, Fundamentals of Physics (Wiley)

Evaluation

Max. Marks: 100

Continuous evaluation	50 marks
End semester examination and Viva-voce	50 marks