Pandit Deendayal Petroleum University **School of Liberal Studies**

16BSP201P					University Physics-II 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 principle of electrical and magnetic devices 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. Introduction of oscilloscope
2. Optical fiber characteristics
3. e/m Thomson method
4. Newton's ring experiment
5. Photo conductivity measurement
6. Charging and discharging of capacitor
7. Di-electrical constant measurement
8. Electrical conductivity measurement
9. Filter in power supply
10. Thermal conductivity of the material
11. Resistivity measurement using Hall effect method
12. Biot Savart's law
13. Single, double slit laser diffraction experiment

** 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 – illustrate the various properties and working of optical fibre.
CO3 - Demonstrate interference phenomena due to thin films.
CO4 - Investigate the electrical and thermal conductivity of a given material.
CO5 - Examine the charging and discharging phenomenon in capacitor.
CO6 - understand the resistivity measurement for given semiconductor.

TEXT/REFERENCE BOOKS

1. Electromagnetism by B B Laud 2nd Edition, Wiley eastern limited.
2. Electricity and Magenetism with Electronics by K. K. Tiwari (S. Chand & Company Ltd. 2007)
3. Heat and Thermodynamics by Brij lal and N Subramaniyam ,(S Chand & Co.Ltd, New Delhi).
4. Optics by Brij lal and N Subramaniyam ,(S Chand & Co.Ltd, New Delhi).
5. Concepts of modern Physics by Arthur Beiser, TMH.

Evaluation

Max. Marks: 100

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