18BSP603P					Basic Electronics Laboratory					
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 components of basic electronics.
- To gain practical knowledge in the field of electronic circuits through experiments.
- To understand basics concepts of electronic devices and amplification.

List of experiments (Any 10)

1. To study the principle of Kirchhoff's law.
2. To verify the super position theorem.
3. To verify the maximum power transfer theorem.
4. To study the operation of Diac used in triggering circuits of power electronics.
5. To perform the gate triggering characteristics of an SCR.
7. To study the operation of photo-voltaic using variable light source.
8. To observe the waveform of Hartley oscillator and measure the output frequency.
9. To study I-V characteristics of Zener diode.
10. To study areal characteristics of solar panel.
11. To study LCR circuit.
12. To study I-V characteristics of P-N junction diode.

COURSE OUTCOMES

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

CO1 - Apply and analyse the concepts of basic electronics and circuits.
CO2 - Understand the concept of current addition at nodes.
CO3 - Demonstrate and implement the concept of voltage division.
CO4 - Investigate the effect of area on solar panel output.
CO5 - Examine various electronic components including P-N junction diode, Zener diode etc.
CO6 – Examine the I-V characteristics of solar cell with variation in the light intensity.

TEXT/REFERENCE BOOKS

1. Principles of Electronics – V. K. Mehta 3rd Edition, S. Chand, Company Ltd, New Delhi
2. Electronic Devices- Thomas L. Floyd, 7th Edition, Pearson Education
3. Electronic Devices and Circuits – Allen Mottershed, 2003 Edition, Prentice-Hall, Pvt. Ltd, New Delhi
4. Electronics Principles – Albert Malvino, 6th Edition, 1999.

Evaluation

Max. Marks: 100

Continuous evaluation	50 marks
End semester examination, Viva-voce & project presentation	50 marks