

**SARDAR PATEL UNIVERSITY**  
**Programme: B.Sc (Physics)**  
**Semester: VI**  
**Syllabus with effect from: November/December-2013**

<b>Paper Code: US06CPHY08</b>	<b>Total Credit: 2</b>
<b>Title Of Paper: Physics Practical (Analog and Digital Circuits)</b>	

Description in detail	
List Of Practicals	
1	Wein-bridge oscillator
2	Bistable Multivibrator
3	Characteristics of UJT
4	Power amplifiers
5	Operational amplifier applications(Integrator, Differentiator, Adder, Subtractor, log amplifiers and Comparator)
6	Measurements of Op-Amp parameters(Input offset voltage, input offset current, CMRR, Slew rate)
7	Active filters ( Low pass, High pass and band pass filter)
8	Four Bit Binary Up and Down Counters
9	Four bit shift registers
10	Computer simulation of Digital electronic circuits

**Note:** To provide flexibility up to the maximum of 20% of total experiments can be replaced/ added to the list by the board of studies.

**Basic Text & Reference Books :-**

- Advanced Practical Physics for students  
B L Wosnop and H T Flint, Methuen and Co. Ltd., London
- B.Sc. Practical Physics  
C L Arora, S.Chand & Co. Ltd., New Delhi
- Advanced Practical Physics  
M S Chauhan and S P Singh, Pragati Prakashan, Meerut
- Advanced Practical Physics  
S L Gupta and V Kumar, Pragati Prakashan, Meerut
- An advanced course in practical Physics  
D Chattopadhyay and P C Rakshit, New Central book agency Pvt. Ltd.

