

SARDAR PATEL UNIVERSITY
Programme: B.Sc
Semester: II
Syllabus with effect from: November-2011

Paper Code: US02CINV02	Total Credit: 2
Title of Paper: Instrumentation System - II	

Unit	Description in detail	Weightage (%)
I	Power supply: Block diagram study, Transformer-Types and its action, Rectifier section, Filters (C, L, LC & π), Regulators and its function.	25%
II	Transducers: Definition and Classification of transducers, Selecting transducer, Strain gages – Gage factor, Metallic Sensing Element, Gage Configuration.	25%
III	Displacement transducer – Capacitive transducer, Inductive transducer, Oscillation transducer, Potentiometric transducer, Piezo electric transducer.	25%
IV	Light units, Photomultiplier tube, Photoconductive cell, Light emitting diode, Photodiode, Solar cell, Photo transistors.	25%

Basic Text & Reference Books:

- Modern Electronics Instrumentation & Measurement Techniques by A. D. Helfrick, W. D. Cooper.
- Electronic devices and circuits, David Bell

