SARDAR PATEL UNIVERSITY
Programme & Subject: M.Sc (Defence Science)
Semester: II
Syllabus with Effect from: June - 2014

Paper Code: PT02CDSC05	**Total Credit: 4**
Title Of Paper: Experimental Methods - II	

Unit	Description in Detail	Weightage (%)
	Error estimations in experimental observations and method of least square fit	
	Study of Hall Effect in semiconductor and to determine Hall Co-efficient, Hall voltage, carrier density, carrier Mobilities and find out type of the semiconductor.	
	Characteristics of the Linear Variable Differential Transducer (L.V.D.T)	
	I-V-T characteristics of LED below the barrier voltage Vo (firing voltage) (ON voltage) and to find out the material constant η and the barrier voltage Vo, also to estimate the Planck's constant based on the LED characteristics	
	Study of the strain gauge characteristics	
	Study of the Load cell characteristics	
	Study of the LASER beam Diode characteristics. Determination of Optical Power (Po) of a Laser Diode and LASER diode Forward current (Ip)	
	Determination of the Curie temperature for ferroelectric materials	
	Study of the Thomson effect and Peltier effect using Thermocouple	
	Design and Construction of a 4 bit R 2R ladder DAC (digital to analog conversion) circuit and ADC (analog to digital circuit). To plot the curve of 4 bit R 2R ladder DSC circuit	