Seat No.:	Enrolment No.

## GUJARAT TECHNOLOGICAL UNIVERSITY PDDC - SEMESTER-VII • EXAMINATION - WINTER 2013

Su	bject	t Code: X 70903 Date: 07-12-2013	
Subject Name: Industrial Instrumentation Time: 10.30 am - 01.00 pm Total Marks: 7			
	tructio 1. 2. 3.	ons:  Attempt all questions.  Make suitable assumptions wherever necessary.	
Q.1	(a) (b)	Explain Static and Dynamic Characteristic of Instrumentation System. Explain Principal and Classification of Transducers.	0'. 0'.
Q.2	(a) (b)	Explain different types of strain gauges and explain any one with necessary diagram.  Derive Expression of Gauge Factor.	0':
	(b)	OR Explain working and Operation of Resistive Strain Gauge.	0'
Q.3	(a) (b)	Explain construction and working of Load Cell (any one). Explain L.V.D.T. with necessary diagram.  OR	0'. 0'.
Q.3	(a) (b)	Give Classification of Methods of Torque Measurement and Explain any one. Explain application of Load Cell. (Any one)	0'. 0'.
Q.4	(a) (b)	Explain working of Ultrasonic flow meter. Explain Pirani Gauge with Necessary Diagram.  OR	0'. 0'.
Q.4	(a) (b)	Explain working principle of Rotameter for flow measurement.  Explain McLeod Gauge for Pressure Measurement With Necessary Diagram.	0'. 0'.
Q.5	(a) (b)	Explain Air Purge System for Level measurement. Write Short Note on RTD.  OR	0'. 0'.
Q.5	(a) (b)	Write Short Note on X-Y Type Recorder. Write Short Note on Data Acquisition System.	0'. 0'.

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