Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–V • EXAMINATION – SUMMER 2013

Subject Code: 151701 **Date: 16-05-2013**

Subject Name: Industrial Measurement

Time: 10.30 am - 01.00 pm **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Explain 4-lead wire compensation of RTD.	**07**
	(b)	Explain cold-junction compensation in thermocouple.	**07**
Q.2	**(a)**	Explain thermister in detail.	**07**
	(b)	Explain optical pyrometer with neat sketch.	**07**
		OR	
	(b)	Explain constant temperature type hot wire anemometer.	**07**
Q.3	**(a)**	Explain impeller turbine mass flow meter.	**07**
	(b)	Explain pitot tube with principle and working in detail.	**07**
		OR	
Q.3	**(a)**	Explain orifice plate flow meter in detail.	**07**
	(b)	Explain principle, working and construction of Rotameter.	**07**
Q.4	**(a)**	Explain principle and working of ring type manometer with neat sketch.	**07**
	(b)	Explain Piezo electric pressure measurement with neat diagram.	**07**
		OR	
Q.4	**(a)**	Explain pirani gauge for vacuum measurement.	**07**
Q.4	**(b)**	Explain air purge level measurement with neat sketch	**07**
Q.5	**(a)**	Explain ultrasonic level measurement with neat sketch.	**07**
	(b)	Explain differential pressure method of level measurement for open and closed tank with neat sketch.	**07**
		OR	
Q.5	**(a)**	Explain elastic type pressure measuring elements in short.	**07**
	(b)	Give the difference between thermocouple and RTD.	**07**

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