Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–V • EXAMINATION – WINTER • 2014

Subject Code: 151701 **Date: 28-11-2014**

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)**	Narrate constant temperature type hot wire anemometer with neat sketch, principle and working.	**07**
	(b)	Narrate Doppler flow meter with neat sketch, principle and working.	**07**
Q.2	**(a)**	Narrate reciprocating piston type flow meter with neat sketch, principle and working.	**07**
	(b)	Narrate constant pitot tube with neat sketch, principle and working.	**07**
		OR	
	(b)	Narrate orifice flow meter with neat sketch, principle and working.	**07**
Q.3	**(a)**	Narrate capacitance type level measurement with neat sketch, principle and working.	**07**
	(b)	Narrate Microwave level measurement with neat sketch, construction, principle and working.	**07**
		OR	
Q.3	**(a)**	Explain the use of DP transmitter for level measurement with neat sketch.	**07**
	(b)	Narrate displacer and torque tube level measurement with neat sketch, construction, principle and working.	**07**
Q.4	**(a)**	Explain working of Mcleod gauge vacuum measurement with neat sketch.	**07**
	(b)	Narrate bourden tube pressure measurement with neat sketch, construction, principle and working.	**07**
		OR	
Q.4	**(a)**	Narrate strain gauge pressure measurement with neat sketch, construction, principle and working.	**07**
	(b)	Narrate total radiation type temperature measurement with neat sketch, construction, principle and working.	**07**
Q.5	**(a)**	Narrate thermister temperature measurement with neat sketch, construction, principle, operation and working limitations.	**07**
	(b)	Differentiate between RTD and thermocouple.	**07**
		OR	
Q.5	**(a)**	Narrate thermopile temperature measurement with neat sketch, construction, principle and working.	**07**
	(b)	Narrate RTD temperature measurement with constant current source with neat sketch, principle and working.	**07**

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