Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER– V • EXAMINATION – WINTER 2016

Subject Code: 151701 **Date: 24/11/2016**
Subject Name: INDUSTRIAL MEASUREMENT
Time: 10:30AM – 01:00PM **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 current type hot wire anemometer with neat sketch, principle and working.	**07**
	(b)	Narrate Vortex shedding flow meter with neat sketch, principle and working.	**07**
Q.2	**(a)**	Narrate turbine mass flow meter with neat sketch, principle and working.	**07**
	(b)	Narrate flow nozzle with neat sketch, principle and working.	**07**
		OR	
	(b)	Narrate rotameter with neat sketch, principle and working.	**07**
Q.3	**(a)**	Narrate resistance type level measurement with neat sketch, principle and working.	**07**
	(b)	Narrate ultrasonic 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 bubbler system level measurement with neat sketch, construction, principle and working.	**07**
Q.4	**(a)**	Explain working of Pirani gauge vacuum measurement with neat sketch.	**07**
	(b)	Narrate piezoelectric pressure measurement with neat sketch, construction, principle and working.	**07**
		OR	
Q.4	**(a)**	Narrate dead weight piston gauge for pressure measurement with neat sketch, construction, principle and working.	**07**
	(b)	Narrate hydrostatic pressure method in closed tank for level 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)	Narrate thermopile temperature measurement with neat sketch, construction, principle and working.	**07**
		OR	
Q.5	**(a)**	Narrate RTD temperature measurement with constant current source with neat sketch, principle and working.	**07**
	(b)	Give different temperature scales and compare them.	**07**

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