

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE – SEMESTER V • EXAMINATION – WINTER - 2012****Subject code: 151701****Date: 12-01-2013****Subject Name: Industrial Measurement****Time: 02:30 pm to 05:00 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 RTD resistance measurement using Wheatstone Bridge circuit. State its disadvantages. **07**  
(b) Explain different laws of thermocouple. **07**
- Q.2** (a) Explain black body radiation and its realization. **07**  
(b) Explain thermopiles in detail. **07**
- OR**
- (b) Explain constant current type hot wire anemometer. **07**
- Q.3** (a) Explain electromagnetic flow meter. **07**  
(b) Explain ventury tube with principle and working in detail. **07**
- OR**
- Q.3** (a) Explain target flow meter in detail. **07**  
(b) Explain principle, working and construction of Ultrasonic flowmeter. **07**
- Q.4** (a) Explain principle and working of enhanced leg manometer with neat sketch. **07**  
(b) Explain strain gauge pressure measurement with neat diagram. **07**
- OR**
- Q.4** (a) Explain mcLeod gauge in detail. **07**  
**Q.4** (b) Explain float type level measurement in detail. **07**
- Q.5** (a) Explain capacitance type level measurement with neat sketch. **07**  
(b) Explain laser level switch. **07**
- OR**
- Q.5** (a) Explain bourdon tube in detail. **07**  
(b) Explain microwave level measurement. **07**

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