

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V • EXAMINATION – SUMMER • 2014****Subject Code: 151701****Date: 13-06-2014****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) Explain Microwave type level switches. **07**
(b) Write a short note on Mc.Leod vacuum Gauge. **07**
- Q.2** (a) Give the comparison of Thermistor, RTD & Thermocouple. **07**
(b) Explain principle, working & operation of Laser Doppler Anemometer. **07**
- OR**
- (b) Write short note on venturi tube for flow measurement. **07**
- Q.3** (a) Discuss principle & various types of strain gauge. **07**
(b) Write a short note on Rotameter. **07**
- OR**
- Q.3** (a) Define following, **07**
(i) Seebeck effect
(ii) Peltier effect
(iii) Thomson effect
(b) Discuss four wire Wheatstone bridge circuits to measure RTD resistance. What are the advantages of it? **07**
- Q.4** (a) Write a short note on level switches. **07**
(b) Write a short note on impeller turbine type mass flow meter. **07**
- OR**
- Q.4** (a) Explain bubbler method in detail with its advantages & disadvantages. **07**
(b) Write a short note on Pyroelectric cones. **07**
- Q.5** (a) Define temperature. Explain different temperature scales. **07**
(b) Explain principle & operation of Pitot tube & flow nozzle. **07**
- OR**
- Q.5** (a) Explain ultrasonic level switches in detail. **07**
(b) Explain construction & working of dead weight tester. **07**
