

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V (OLD) - EXAMINATION – SUMMER 2017

Subject Code: 151701

Date: 05/05/2017

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 temperature measurement using RTD in detail. **07**
(b) Explain the principle of working of a transit time ultrasonic flowmeter. **07**
- Q.2** (a) Enlist pressure gauges used for low pressure measurement and explain any one in detail. **07**
(b) Explain bubbler method in detail with its advantages & disadvantages. **07**
- OR**
- (b) Explain the principle and working of capacitance type level measurement system. **07**
- Q.3** (a) Compare RTD, Thermistor and Thermocouple. **07**
(b) Convert 100 °C to °Ra, °F and °K. Explain thermoelectric effects. **07**
- OR**
- Q.3** (a) Enlist Radiation thermometer types and explain any one in detail. **07**
(b) Write a short note on elastic type pressure gauges. **07**
- Q.4** (a) Explain principle, working, construction and application of Dead Weight Piston Gauge. **07**
(b) Enlist Positive Displacement Meters and explain any one in detail with advantages and disadvantages. **07**
- OR**
- Q.4** (a) Write short note on Level Switches. **07**
(b) Explain flow measurement using Orifice plate with its merits and demerits. **07**
- Q.5** (a) Explain principle and working of electromagnetic flow meter. **07**
(b) Explain in detail filled system thermometers. **07**
- OR**
- Q.5** (a) Explain piezoelectric pressure measurement technique in detail. **07**
(b) Explain Level Measurement using Displacer and Torque Tube in detail. **07**
