

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-IV • EXAMINATION – WINTER 2013

Subject Code: 141702**Date: 30-12-2013****Subject Name: Transducers****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) List out and discuss performance characteristics of an instrument. **07**
(b) What is pH? Explain glass electrode in detail. **07**
- Q.2** (a) Discuss displacer type level detector. **07**
(b) Explain any one mass flow meter. **07**
- OR**
- (b) Explain calibration procedure of flow meter. **07**
- Q.3** (a) Define force. Explain measurement of force in brief. **07**
(b) Define speed. Explain measurement of speed in brief. **07**
- OR**
- Q.3** (a) Discuss camera based width measurement. **07**
(b) Explain different pressure measurement by manometer. **07**
- Q.4** (a) Discuss pressure switch in detail. **07**
(b) Explain maintenance and repair of pressure measuring instruments. **07**
- OR**
- Q.4** (a) Explain filled system type thermometers in detail. **07**
Q.4 (b) Discuss pyrometers in detail. **07**
- Q.5** (a) Define sensors, transducers and primary sensing element. Give examples of each. **07**
(b) Explain any one transmitter. **07**
- OR**
- Q.5** (a) Discuss ultrasonic thermometer. **07**
(b) Explain eddy current type level measurement. **07**
