

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.E. Sem-IV Remedial Examination Nov/ Dec. 2010

Subject code: 141702

Subject Name: Transducers

Date: 08 / 12 /2010

Time: 03.00 pm – 05.30 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 the LVDT with it's advantages & disadvantages. 07
(b) Explain the rotameter with it's merits & demerits. 07

- Q.2 (a) Explain the construction & working of pirani gauge. 07
(b) Explain electromagnetic flowmeter. 07

OR

- (b) Explain Mc-leod gauge with merits & limitations. 07

- Q.3 (a) What is the orifice plate ? Explain the various types of orifice plates. 07
(b) Explain optical pyrometer with it's merits. 07

OR

- Q.3 (a) Explain resistance strain gauge transducer. 07
(b) With neat sketch, explain the construction and working of a gas electrode pH measurement system. 07

- Q.4 (a) Explain the radiation level detector for level measurement. 07
(b) Explain the thermocouple with it's merits & demerits. 07

OR

- Q.4 (a) Explain hydraulic forcemeter with it's advantages. 07
(b) Explain the capacitive level indicator with it's advantages & disadvantages. 07

- Q.5 (a) Compare strip chart recorder and circular chart recorder. 07
(b) Draw the block diagram of an instrumentation system.write in short the function of each block. 07

OR

- Q.5 (a) Short note : Thermistor 07
(b) Explain laser diameter gauge for measure the diameter. 07
