Seat No.: Enrolment No

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-IV EXAMINATION - SUMMER 2016

	Subj	ect Code:141702 Date:10/06/2016	
	Subj	ect Name:Transducers	
	Time	2:10:30 AM to 01:00 PM Total Marks: 70	
	Instru	ctions:	
		1. Attempt all questions.	
		 Make suitable assumptions wherever necessary. Figures to the right indicate full marks. 	
Q.1	(a)	Define following terms: 1) Accuracy 2) Repeatability 3) Calibration 4) Lag 5) Drift 6) Precision 7) Backlash	07
	(b)	Explain in detail classification of transducers with example.	07
Q.2	(a) (b)	Explain Bubbler tube method for level measurement. Short note:- Thermocouple.	07 07
	()	OR	
	(b)	What is XY recorder ?Explain working of XY recorder with diagram	07
Q.3	(a) (b)	Explain Bourden tube pressure gauge in detail Draw the block diagram of an instrumentation system. write in short the function of each block.	07 07
		OR	
Q.3	(a) (b)	Explain A.C. Tachometer with diagram Explain Capacitance type level measurement in detail	07 07
Q.4	(a) (b)	Explain Mc-leod gauge with its advantages and limitations Explain Rotameter in detail.	07 07
		OR	
Q.4	(a)	Define the term pH. Explain the working principle of pH measurement. State the application, advantages and disadvantages for pH meters.	07
	(b)	Explain any one viscosity measurement technique with its limitation and benefits	07
Q.5	(a)	Explain optical pyrometer with it's advantages.	07
	(b)	Explain bellows with diagram, advantages and disadvantages. OR	07
Q.5	(a)	What is the orifice plate? Explain the various types of orifice plates.	07
	(b)	Explain LVDT with its merits and demerits	07
