Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V (NEW) - EXAMINATION - SUMMER 2016

	•	ct Code:2151706 Date:11/05/2	016
1	•	ct Name:Industrial Measurement II 02:30 PM to 05:00 PM Total Marks tions:	s: 70
		 Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. 	
Q.1	(a)	Give explanation about following terms. (i)Conductivity (ii) bouncy force (iii) Strain (iv) Shear thickening (v) Absorption (vi) Turbidity (vii) Reflection.	07
	(b)	Define Viscosity. What are the different methods of Viscosity measurement? Explain any one method with basic Principle, working & suitable application	07
Q.2	(a)	Explain principle, working and construction of Inductive Accelerometer transducer.	07
	(b)	Explain principle, working and construction of Magneto elastic Load cell transducer. OR	07
	(b)	Explain principle, working and construction of Eddy Current proximity Sensor.	07
Q.3	(a)	Explain principle, working and construction of Optical Pulse Tachometer transducer for speed measurement.	07
	(b)	Explain principle, working and construction of Magneto strictive Transducer for displacement measurement.	07
Q.3	(a)	OR Explain principle, working and construction of Ultrasonic Densitometer for density measurement.	07
	(b)	Define the term pH of a solution. Explain the construction and working principle of standard hydrogen electrodes for measuring the pH of an unknown solution.	07
Q.4	(a)	 Explain in detail "Liquid chromatography. Explain in detail "Electron Ionization" in relevance of Mass spectroscopy. 	04 03
	(b)	Explain basic principle of UV visible absorption spectrophotometer. OR	07
Q.4	(a)	Explain principle, working and construction of Wet and Dry bulb Hygrometer for Humidity measurement.	07
	(b)	Write a short note on X ray spectroscopy.	07
Q.5	(a)	Give two differences between bonded and unbounded strain gauge. Explain Semiconductor gauge in detail.	07
	(b)	How to measure oxygen using paramagnetic oxygen analyzer. OR	07
Q.5	(a)	Explain principle, working and construction of dispersive and non dispersive type infrared analyzer.	07
	(b)	Explain principle, working and construction of Nozzle-Flapper Pneumatic Transducer for displacement measurement.	07
