Seat No.:	Enrolment No.

## GUJARAT TECHNOLOGICAL UNIVERSITY ME SEMESTER II EXAMINATION – SUMMER 2017

	•	Code: 2724406	Date:31/05/2017	
Ti	me:02 tructio 1. 2.		Total Marks: 70	
<b>Q.1</b>	(a) (b)	List sensor characteristics. Explain any three in detail.  Describe dynamic models of sensor elements.	07 07	
Q.2	(a) (b)	What is interface circuit? Explain its characteristic in detail. Explain various types of force, strain and tactile sensors.  OR	07 07	
	<b>(b)</b>	Explain various types of velocity and acceleration sensors.	07	7
Q.3	(a) (b)	Write short note on amplifiers utilized in interface circuit for se Explain physical principles of sensing using light.  OR	ensor. <b>07</b>	
Q.3	(a) (b)	Explain various types of analog to digital converters.  Explain physical principles of sensing using heat transfer.	07 07	
Q.4	(a) (b)	Write short note on excitation circuits for sensor.  Explain physical principles of sensing using Hall effect.  OR	07 07	
Q.4	(a) (b)	Explain direct digitalization and processing in interface circuit to Explain physical principles of sensing using piezoelectric effects		

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(a) Write short note on surface processing for sensor manufacturing.

(a) Write short note on sensor materials.

**(b)** Explain various types of temperature sensors.

**(b)** Explain various types of pressure sensors.

**Q.5** 

Q.5

**07** 

**07** 

**07** 

**07**