Seat No.:	Enrolment No.
Scat 110	Emonicit No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII • EXAMINATION - SUMMER • 2015

Date:06/05/2015

Subject Code: 171705

Ti	me:(structi		70
	2	Attempt all questions.Make suitable assumptions wherever necessary.Figures to the right indicate full marks.	
Q.1	(a) (b)	Draw and explain gastrointestinal system in detail. Discuss respiratory system in detail.	07 07
Q.2	(a) (b)	List out different measurement errors and suggest remedies for each of them. Define noise, signal to noise ratio, noise factor and noise figure.	07 07
		OR	
	(b)	Discuss surface electrodes and their applications.	07
Q.3	(a) (b)	Draw and discuss application of capacitive transducers in medical field. Design and explain any one signal processing circuit for medical instrument.	07 07
		OR	
Q.3	(a) (b)	Design and explain isolation amplifier. What is its importance? Drew and interpret the ECG signal.	07 07
Q.4	(a)	Discuss working and application of ultrasonic noninvasive pressure measurement.	07
	(b)	Design pressure amplifier and explain.	07
		OR	
Q.4	(a) (b)	How can we measure cardiac output? Explain in detail. How can we identify unbalanced and diseased state of respiratory system? Explain in detail.	07 07
Q.5	(a) (b)	Discuss the EEG amplitude and frequency bands and their use in diagnosis. Discuss blood gas analyzer in detail	07 07
		OR	
Q.5	(a) (b)	Explain blood cell counters in detail. Explin working and application of colorimeter and flame photometer.	07 07
