

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- VIIth SEMESTER-EXAMINATION – MAY/JUNE- 2012****Subject code: 171705****Date: 29/05/2012****Subject Name: Instrumentation for Bio Medical Application****Time: 02:30 pm – 05:00 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 in detail structure and function of the central nervous system	07
	(b)	Write in detail current Loading coupling with necessary block diagram	07
Q.2	(a)	Explain in detail “ Heart Problems “	07
	(b)	List out three noise reduction methods and describe one of each very shortly with necessary diagram	07
		OR	
	(b)	Explain three different ways that the noise performance of an amplifier or circuit can be expressed	07
Q.3	(a)	Explain Microelectrodes with necessary diagram	07
	(b)	Explain piezo resistivity and its application	07
		OR	
Q.3	(a)	Explain in detail surface electrodes with necessary diagram	07
	(b)	Different form of error generated by sensors explain in detail	07
Q.4	(a)	Write a properties of bioelectric amplifier with its advantages	07
	(b)	What is virtual ground from which basic operation amplifier properties does it follows	07
		OR	
Q.4	(a)	Draw the circuit diagram of log and antilog amplifier, and explain it	07
	(b)	Explain in detail ECG readout system,	07
Q.5	(a)	Write a short note in Defibrillators	07
	(b)	Describe more about conventational spirometers.	07
		OR	
Q.5	(a)	Write a short note in intermittent positive pressure breathing therapy	07
	(b)	Explain in detail Doppler flow detector	07
