Seat No.:	Enrolment No.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

M. E. - SEMESTER – I • EXAMINATION – WINTER 2012

•		code: 713102N Date: 09/01/2	013
Time	e: 02	Name: Biosensors & Biomems 2.30 pm – 05.00 pm Total Marks:	<b>70</b>
Insti	1. 2.	ions: Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a)	Design rectifier and filter for 30V/3A regulated power supply using transistor as series pass element with fold back protection of 2:1.	14
Q.2	(a) (b)	function in terms fo $E_0$ and $I_p$ .	07 07
	<b>(b)</b>	OR Explain the theory of operation and applications of IR radiation thermometers.	07
Q.3	(a) (b)	1	07 07
Q.3	(a)	and explain it signal conditioning circuit.  OR  Write a short note on force measurement using beam type load cell.  Design the circuit for load cell interface.	07
	(b)	_	07
Q.4	(a) (b)	industry.	07 07
Q.4	(a) (b)		07 07
Q.5	(a) (b)		07 07
Q.5	(a) (b)		07 07
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