Seat No.:	Enrolment No.
Seat No	Elifoliticiti No.

## GUJARAT TECHNOLOGICAL UNIVERSITY

DIPLOMA ENGINEERING - SEMESTER-VI • EXAMINATION - SUMMER • 2014

	•	Code: 361703 Date: 28-05-2014 Name: Biomedical Instrumentation	
Tiı	•	.0:30 am - 01:00 pm Total Marks: 70	
	1. 2. 3.	Attempt all questions.  Make suitable assumptions wherever necessary.  Figures to the right indicate full marks.	
Q.1	(a) (b)	Classify blood pressure measuring methods. Explain any one transducer. Define respiration rate. list the respiration rate measurement techniques and explain any one.	07 07
Q.2	(a) (b)	Define bio-electricity. Explain its generation within the living tissue.  Draw and explain ECG block diagram.  OR	07 07
	(b)	Explain standard lead system for an ECG.	07
Q.3	(a)	Classify bio-electrodes. State the application and explain care to be taken while using it.	07
	(b)	Explain characteristic of X rays and also state the application of X-rays.  OR	07
Q.3	(a) (b)	Draw and explain block diagram of X ray machine. Explain ECG electrodes with neat sketches.	07 07
Q.4	(a) (b)	Draw and explain block diagram CT scan Explain block diagram of muscle stimulator with application OR	07 07
Q. 4	(a) (b)	Explain block diagram of Hemo-dialysis machine. Explain block diagram of electro surgical machine	07 07
Q.5	(a) (b)	Describe defibrillator in detail. Write short note on "echocardiography" OR	07 07
Q.5	(a) (b)	Write short note on "pacemaker"  Describe working principle of blood cell counter.	07 07

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