Seat No.:	
No	

## GUJARAT TECHNOLOGICAL UNIVERSITY BE – SEMESTER – VI EXAMINATION – WINTER 2015

	•	Code:160301 Date:15/12/ 2015	
	-	Name: Diagnostic Instrumentation:30pm to 5:00pmTotal Marks: 70	
	tructio	ons: Attempt all questions. Make suitable assumptions wherever necessary.	
Q.1	(a)	Define diagnosis. Explain the various methods of diagnosis of various	07
	(b )	abnormalities. Enlist and briefly explain methods used in diagnosis of cardio-vascular abnormalities.	07
Q.2	(a)	Which techniques are employed for diagnosis of nervous system disorders? Explain any one techniques briefly.	07
	(b )	Write a brief note on pure tone audiometer.	07
	,	OR	
	(b )	Write a brief note on speech audiometer.	07
Q.3	(a)	Give the difference between adult and fetal heart sound.	07
C	(b )	Write a detailed note on capsule endoscopy.	07
	·	OR	
Q.3	(a)	Explain the generation of X-ray and interaction with body tissue in detail.	07
	(b )	What is tonometer? Enlist and explain various applications of tonometer.	07
Q.4	(a)	Which protocols are used for telemedicine? Enlist methods used in Biotelemetry on the basis of area covered.	07
	(b )	Explain measurement principal of MRI.	07
		OR	
Q.4	(a)	Write fundamental principal of pulse oximetry. Explain the instrumentation in detail.	07
	(b )	Describe measurement principal of PET scan.	07
Q.5	<b>(a)</b>	Describe the functional diagram of electromagnetic blood flow meter.	07
	(b )	Enlist and explain various modes of ultrasonography.	07
		OR	
Q.5	<b>(a)</b>	Explain different generations of CT scan.	07

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