Seat No.:	Enrolment No.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

		BE - SEMESTER-VII (OLD) - EXAMINATION – SUMMER 2017	
Sı	ıbiea	et Code: 172102 Date: 11/05/20	17
	•	et Name: Non Destructive Testing	
Ti	ime: struct	02:30 PM to 05:00 PM Total Marks:	70
	2	<ol> <li>Attempt all questions.</li> <li>Make suitable assumptions wherever necessary.</li> <li>Figures to the right indicate full marks.</li> </ol>	
Q.1	(a) (b)	Briefly discuss on types of manufacturing processes defects.  Differentiate Destructive and Non-Destructive testing.	07 07
Q.2	(a)	How visual inspection helps in non-destructive testing? Enlist different visual examination aids.	07
	<b>(b)</b>	On which principle leak and pressure test works? List out various methods for that. Explain any one method for leak and pressure test.  OR	07
	<b>(b)</b>	Classify different NDT methods. Justify any three methods for NDT.	07
Q.3	(a) (b)	Explain principle of Liquid Penetrant Test. Write steps required for LPT.  Explain Magnetic Particle Testing and its limitations.  OR	07 07
Q.3	(a) (b)	In which NDT method, penetrameter used? Discuss its importance. Write principle of Radiography testing. Explain RT in brief.	
Q.4	(a) (b)	Write short note on Eddy Current Testing. Which method is best for Insitu inspection in pipe line of refinery? Why?  OR	
Q.4	(a) (b)	With line diagram explain Ultrasonic flaw detector test. What do you mean by thermography? Explain.	
Q.5	(a) (b)	Discussed on holography, tomography and MRI in NDT.  Write principle of Acoustic Emission technique. Discuss on major application area for detection of defects through this technique.  OR	
Q.5	(a) (b)	What is ultrasonic transducer? Discuss on different transducer.	07 07

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