GUJARAT TECHNOLOGICAL UNIVERSITY BE SEMESTER- 7th EXAMINATION - SUMMER 2015

Subject Code: 172102 Subject Name: Non Destructive Testing Time: 02.30PM-05.00PM Instructions:			Date: 08/05/2015
			Total Marks: 70
nistru	1. 2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a)		07
	(b)	testing. List commonly used NDT methods. What is Dye Penetrant Test (DPT)? Explain this technique.	07
Q.2	(a)	What is ultrasonic testing (UT)? Explain pulse echo method of UT.	07
	(b)	Which materials are subjected to magnetic particle testing? Discuss this test.	07
	(b)	OR Discuss briefly leak and pressure testing.	07
Q.3	(a)	List applications, advantages and limitations of ultrasonic testing.	07
	(b)	Differentiate clearly between X-ray and Gamma radiography techniques.	07
Ω^2	(a)	OR Discuss about defects in casting, forging and welding.	07
Q.3	(a) (b)	Write a short note on Eddy Current Testing (ECT).	07
Q.4	(a)	Explain briefly welding radiography.	07
•	(b)	Explain basic principles of thermography. OR	07
Q.4	(a)	Write a short note on sources of Gamma rays.	07
	(b)	Explain basic properties of sound waves.	07
Q.5	(a)	Discuss advantages and limitations of DPT.	07
	(b)	What is Acoustic Emission Testing (AET)? Explain briefly. OR	07
Q.5	(a)	Explain visual examination method using boroscope.	07
	(b)	Briefly discuss selection of NDT techniques for detection of defects.	07
