Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. E. - SEMESTER – VI • EXAMINATION – WINTER 2012

Subject code: 162502 **Date: 03/01/2013**

Subject Name: Welding Technology

Time: 02.30 pm - 05.00 pm **Total Marks: 70**

Instructions:

1. **Attempt any five questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Write a short note on Pre and Post weld heat treatment process.	**07**
	(b)	Write a short note on HAZ.	**07**
Q.2	**(a)**	Explain coding and classification of mild steel and alloy steel electrodes as per Indian and American system.	**07**
	(b)	Define welding .Classify the welding processes as per AWS.	**07**
		OR	
	(b)	Compare welding with riveting and casting process.	**07**
Q.3	**(a)**	Explain Oxy Acetylene gas welding process with neat sketch.	**07**
	(b)	Explain TIG welding process with neat sketch.	**07**
		OR	
Q.3	**(a)**	Explain Submerged Arc welding process with suitable case study.	**07**
	(b)	Explain Gas welding techniques with necessary sketch	**07**
Q.4	**(a)**	Compare Electro slag and Electro gas welding process with neat sketch.	**07**
	(b)	Write a brief note on Thermit welding process with neat sketch.	**07**
		OR	
Q.4	**(a)**	List down the variables of Resistance welding process and explain steps of spot welding process with neat sketch.	**07**
	(b)	Write a short note on Plasma Arc welding process with neat sketch.	**07**
Q.5	**(a)**	Explain welding defects with their causes and remedies.	**07**
	(b)	Compare Friction and Forged welding process.	**07**
		OR	
Q.5	**(a)**	Write a short note on various NDT process.	**07**
	(b)	Explain Atomic Hydrogen welding process with neat sketch.	**07**

****