## **GUJARAT TECHNOLOGICAL UNIVERSITY**

BE - SEMESTER-VI (NEW) - EXAMINATION - SUMMER 2016

Subject Code:2162109		ct Code:2162109 Date:17/05/201	Date:17/05/2016  Total Marks: 70	
	Subject Name: Metal Joining Processes Time: 10:30 AM to 01:00 PM Total Ma			
	nstruc			
Q.1	(a)	Give classification of welding power source. Write a short note on modes of metal transfer.	07	
	<b>(b)</b>	Write a short note on Welding Symbols with suitable example.	07	
Q.2	(a) (b)	Explain the Coding Method of SMAW Electrode with suitable example.  Explain the Heat flow pattern in SMAW. Explain the Importance of Preheating and post heating on the weldments structure.  OR	07 07	
	<b>(b)</b>	Explain friction Stir welding with neat sketch, principle, working, welding parameter, application & limitations.	07	
Q.3	(a) (b)	Differentiate Soldering and Brazing. Write short notes on Welding gun.	04 03	
	(c)	Differentiate between TIG welding and MIG Welding OR	07	
Q.3	(a) (b)	Explain Soldering with its basic operational steps. State types of polarity used in welding with its significance.	04 03	
	(c)	Explain Atomic hydrogen welding in details.	07	
Q.4	(a) (b)	State Names of welding Defect with their Causes and Remedies. Explain weld CCT diagram with neat sketch.	07 07	
		OR		
Q.4	(a) (b)	Define Carbon equivalent and explain the role of Carbon equivalent in welding Draw the neat sketch of welding positions (1G, 2G, 3G, 4 G, 5G,6G,1F,2F,3F, 4F)	07 07	
Q.5	(a)	Define Weldability. Explain the Factors affecting the Weldability for Carbon Steel.	07	
	<b>(b)</b>	Explain the cost calculation in welding with suitable example.	07	
		OR		
Q.5	(a)	Define Solidification Crack. Explain any one method to test cracking Susceptibility.	07	
	<b>(b)</b>	State use of ASME Sec. IX in Fabrication Industry. State full Name of WPS, WPQ, and PQR. And Mention the Standard format of PQR as per ASME Sec. IX.	07	

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