Seat No.: Enro	ment No.
----------------	----------

GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER-VII(NEW) • EXAMINATION – WINTER 2016

Subject Code:2172111 Date:21/11/2016			
Subj	ect	Name:Advances in Welding Metallurgy (Department Elective	ve - I)
Time	e:10	.30 AM to 1.00 PM Total Ma	arks: 70
Instru			
		Attempt all questions.	
		Make suitable assumptions wherever necessary.	
	3.	Figures to the right indicate full marks.	
Q.1	(a)	State the various advances in the Welding Processes in terms of productivity & quality.	07
	(b)	Explain with diagram only Energy Intensity of different welding processes.	07
Q.2	(a)	What is Static & dynamic characteristics of Power Sources. ? Explain the Limitations of Conventional Power Sources.	3+4
	(b)		07
	(b)		07
Q.3	(a)	T 2 2	07
	(b)	Write Specifications of Filler Materials of SMAW & SAW Processes.	07
		OR	
Q.3	(a)		07
	(b)	Compare Argon, Helium, Co2 Shielding gases in terms of properties & suitability for GTAW & GMAW Processes.	07
Q.4	(a)	Write features & applications of Plasma Welding. Also explain Plasma Key-hole welding	07
	(b)	Explain with schematics High efficiency Twin-Arc GTAW Processes.	07
		OR	
Q.4	(a)	Explain for which metals DCEP is suitable to use with GTAW Process? How problem of W over heating is taken care of?	4+3
	(b)		07
Q.5	(a)		07
	(b)		4+3
		OR	
Q.5	(a)		07
-	(b)		04+03
