Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII • EXAMINATION – SUMMER • 2014

Subject Code: 172103 Subject Name: Metal Joining Processes Time: 02:30 pm - 05:00 pm Instructions:			Date: 05-06-2014 Total Marks: 70	
		2:30 pm - 05:00 pm Total Marks		
		Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.		
Q.1	(a) (b)	Classify metal joining processes? Discuss importance of welding over other fabrication processes. Explain different joint design and edge preparation with neat sketch	07	
Q.2	(a) (b)	What is Arc welding? Explain SMAW with neat sketch Explain mode of metal transfer in arc welding OR	07 07	
	(b)	Discuss different types of gas welding flames with neat sketch	07	
Q.3	(a) (b)	With necessary diagram show welding arc and discuss its characteristics Discuss common defects in welding with their causes and remedies. OR	07 07	
Q.3	(a) (b)	What are the functions of flux in submerge arc welding and explain it in detail. Explain how gas-metal and slag-metal reactions takes place in welding	07 07	
Q.4	(a) (b)	Compare Metal Inert Gas welding process and Tungsten Inert Gas welding. Explain solid phase welding process in detail OR	07 07	
Q.4	(a) (b)	What do you mean by plasma? Explain plasma welding with a neat sketch. Define weldability and explain the test for weldability	07 07	
Q.5	(a) (b)	Discuss explosive welding process in detail What is electroslag welding? Explain its operation in detail OR	07 07	
Q.5	(a) (b)	Define soldering and discuss it with different type of soldering materials What is brazing process? Discuss different brazing Techniques in detail	07 07	
