Seat No.: Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER- V EXAMINATION - SUMMER 2015

Subject Code: 153403 Subject Name: Foundary and Wolding Tasknology			5/2015	
_	2:2.30 ctions 1. A 2. N	ame: Foundry and Welding Technology OPM-5.00PM Total Marks Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	: 70	
Q.1	(a)	Discuss TIG welding process with principle, advantages, and disadvantages with neat sketch.	07	
	(b)	Explain Friction stir welding process in detail.	07	
Q.2	(a) (b)	Explain Submerged arc welding process with applications. Discuss Plasma arc welding process with advantages and disadvantages. OR	07 07	
	(b)	Explain under water welding process in detail.	07	
Q.3	(a)	Compare soldering, brazing and welding process by considering important parameters.	07	
	(b)	Explain principle of resistance welding. Write a note on seam welding with its industrial applications.	07	
0.1	()	OR	0.5	
Q.3	(a) (b)	Discuss Thermit welding process in detail. Define casting. Write a procedure of manufacturing a component with casting process. Give advantages of casting process.	07 07	
Q.4	(a) (b)	Define pattern. Discuss various types of pattern in brief with sketch. Explain various types of moulding sands used in casting process with properties.	07 07	
0.4	()	OR	05	
Q.4	(a)	Explain centrifugal casting process with advantages, disadvantages and applications. Explain shell moulding process with neat sketch.	07 07	
	(b)			
Q.5	(a) (b)	Discuss co ₂ moulding and plaster mould casting in brief. Enlist various casting defects. Write its causes and remedies. OR	07 07	
Q.5	(a) (b)	Discuss various welding defects with causes and remedies. Enlist various NDT methods used for casting. Discuss any one method used to detect defects in a sub surface level.	07 07	
