Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII EXAMINATION – WINTER 2015

U			2/2015	
Instructions:		10:30am to 1:00pm Total Marks:	tal Marks: 70	
	2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.		
Q.1	(a) (b)	State sequentially the steps involved in casting with neat sketch of a mould box. State the advantages and limitations of a metal pattern. What are the metals used for pattern making?	07 07	
Q.2	(a) (b)	Write a short note on 'Gas Welding' with necessary sketches. Explain 'Submerged Arc Welding (SAW)' with neat sketch and applications. OR	07 07	
	(b)	Write a short note on 'Shielded Metal Arc Welding(SMAW)' with neat sketch and applications.	07	
Q.3	(a) (b)	Explain Abrasive Jet Machining (AJM) process with neat diagram of set up. State the advantages of using jigs and fixtures. OR	07 07	
Q.3	(a) (b)	Explain Electrochemical Machining(ECM) process with neat diagram of set up. What are the main elements of jigs and fixtures? Explain with an example.	07 07	
Q.4	(a) (b)	Differentiate between the cold and hot working process in tabular format. Explain the concept of resistance welding. Discuss any one type of resistance welding with application.	07 07	
Q.4	(a) (b)	OR What are the different forging operations? Explain any two with neat sketch. Differentiate between measuring and gauging. Explain both giving an example.	07 07	
Q.5	(a) (b)	Write a short note on 'Investment Casting' with neat sketches and steps. Explain 'spinning' for a sheet metal with sketch. OR	07 07 07	
Q.5	(a)	Briefly explain Hot chamber and cold chamber casting with neat sketches and advantages etc.	07	
	(b)	What are the different sheet metal operations? Explain any two with neat sketches.	07	
