Seat No.: _____ **Enrolment No._____**

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VII (NEW) - EXAMINATION – SUMMER 2017

Subject Code: 2172003 **Date: 04/05/2017**

Subject Name: Manufacturing Technology - II

Time: 02.30 PM to 05.00 PM **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	What is a ‘ pattern’ ? Briefly explain any two types of patterns with neat sketches.	**07**
	(b)	Explain the significance of polarity in DC arc welding.Also briefly state how the arc welding machines are specified.	**07**
Q.2	**(a)**	What is ‘ spinning’ in case of sheet metal work ? Explain with neat sketch.	**07**
	(b)	What are the types of forging methods ? Explain any two.	**07**
		OR	
	(b)	Write a short note on ‘ Standards of Measurements’ .	**07**
Q.3	**(a)**	Explain ‘ Electrodischarge Machining(EDM) process with equipments and parameters with neat sketch of process.	**07**
	(b)	Explain the methods of angular measurement with neat sketches.	**07**
		OR	
Q.3	**(a)**	Explain ‘Abrasive Jet Machining(AJM) process with equipments and parameters with neat sketch of process.	**07**
	(b)	Explain the Taylor’s principle with examples and neat sketch.	**07**
Q.4	**(a)**	Differentiate between Jigs and Fixtures. Consider one welding job example and explain with figures.	**07**
	(b)	Differentiate between the following casting defects with reference to the causes and methods of prevention.(a) cold shut (b) blow hole and pin hole porosity.	**07**
		OR	
Q.4	**(a)**	Explain the workpiece control and mechanical control in context of jigs and fixture design.	**07**
	(b)	How does a cold rolling differ from hot rolling in terms of the process and product ?	**07**
Q.5	**(a)**	Write a short note on ‘Submerged Arc Welding’.	**07**
	(b)	Briefly discuss the effects of moisture content and clay content on mould.	**07**
		OR	
Q.5	**(a)**	Write a short note on ‘Resistance Welding’.	**07**
	(b)	Describe the steps of ‘Investment Casting’ with neat sketches.	**07**

****