GUJARAT TECHNOLOGICAL UNIVERSITY
BE- SEMESTER–VII (NEW) EXAMINATION – WINTER 2020

Subject Code:2172003   **Date:25/01/2021**

Subject Name:Manufacturing Technology - II

Time:10:30 AM TO 12:30 PM   **Total Marks: 56**

Instructions:
1. Attempt any FOUR questions out of EIGHT questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1	**(a)**	What is 'pattern'? What are the different materials used for making a pattern?	**03**
	(b)	What is 'rolling'? Explain with neat sketch showing all parameters.	**04**
	(c)	Explain the Taylor's principle of gauge design giving example.	**07**
Q.2	**(a)**	Explain blanking and piercing operations of sheet metal with neat sketch.	**03**
	(b)	Differentiate between Jigs and Fixtures in table format giving example and sketch.	**04**
	(c)	How an arc welding machine is specified? Explain.	**07**
Q.3	**(a)**	What is meant by 'Shielded' in SMAW?	**03**
	(b)	What is 'drawing' operation in sheet metal working?	**04**
	(c)	Write a short note on 'Die casting'.	**07**
Q.4	**(a)**	What is 'Spring back' effect in sheet metal? Explain with sketch.	**03**
	(b)	Briefly explain SAW with neat sketch of set up.	**04**
	(c)	Write a short note on 'Investment Casting',	**07**
Q.5	**(a)**	What is 'resistance welding '? What are the types of resistance welding?	**03**
	(b)	What is 'GFN'? Explain how is it determined practically ?	**04**
	(c)	Explain 3-2-1 location system with reference to Jigs and fixtures .	**07**
Q.6	**(a)**	Briefly explain the significance of 'polarity' in case of arc welding.	**03**
	(b)	What is the effect of moisture content on permeability and strength of molding sand? Explain.	**04**
	(c)	What are the main elements of Jigs and Fixtures ? Explain any one with neat sketch.	**07**
Q.7	**(a)**	What is 'Spinning' operation in sheet metal? Explain.	**03**
	(b)	How angular measurement can be carried out? Explain.	**04**
	(c)	Write a short note on AJM giving process set up and variables.	**07**
Q.8	**(a)**	How linear measurement is carried out? Explain.	**03**
	(b)	Write a short note on 'Gas Welding'.	**04**
	(c)	Write a short note on EDM giving process set up and variables.	**07**

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