Seat No.: _____ Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER– IV EXAMINATION – SUMMER 2020

Subject Code: 3140204 **Date:29/10/2020**

Subject Name: Automotive Manufacturing Processes and Technology

Time: 10:30 AM TO 01:00 PM **Total Marks: 70**

Instructions:

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

			MARKS
Q.1	**(a)**	Classify welding processes & define fusion welding & Pressure welding.	**03**
	(b)	Explain the steps involved in sand casting process.	**04**
	(c)	What do you mean by Machining processes? Explain its importance & applications in automobile industries.	**07**
Q.2	**(a)**	Explain any three types of patterns used in casting.	**03**
	(b)	Give difference between hot working & cold working processes.	**04**
	(c)	Explain Principles and Application of Oxy-acetylene gas welding with neat sketch.	**07**
		OR	
	(c)	Explain MIG welding process with neat sketch.	**07**
Q.3	**(a)**	Explain any three super finishing process.	**03**
	(b)	Explain Abrasive Jet machining process.	**04**
	(c)	What is extrusion? Explain direct and indirect extrusion process with neat sketch.	**07**
		OR	
Q.3	**(a)**	Enlist the operations performed on lathe machine & explain any one.	**03**
	(b)	Explain Ultrasonic machining process.	**04**
	(c)	Describe sheet metal cutting operations with suitable sketch.	**07**
Q.4	**(a)**	Explain Up Milling & Down Milling operations.	**03**
	(b)	Explain drop forging and roll forging processes.	**04**
	(c)	Explain steps involved in Investment casting process with neat sketch.	**07**
		OR	
Q.4	**(a)**	Write functions of riser and runner in casting.	**03**
	(b)	Explain difference between planer shaper and slotter.	**04**
	(c)	Explain centrifugal casting process & states its advantages and applications.	**07**
Q.5	**(a)**	What are the main advantages of gas welding over arc welding	**03**
	(b)	Enlist General Properties of Plastics & explain any two.	**04**
	(c)	Explain Laser Beam Machining process with neat sketch.	**07**
		OR	
Q.5	**(a)**	Name a few inert gases and their functions in welding	**03**
	(b)	Explain Classification of Plastics in detailed.	**04**
	(c)	Explain Injection moulding process for Plastic part manufacturing.	**07**

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