Enrolment No./Seat No_____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER–V (NEW) EXAMINATION – WINTER 2024

Subject Code:3151912 Date:02-12-2024

Subject Name:Manufacturing 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.**
4. **Simple and non-programmable scientific calculators are allowed.**

			Marks
Q.1	**(a)**	Briefly Classify manufacturing processes.	**03**
	(b)	Critically compare TIG with MIG welding process.	**04**
	(c)	What is Pattern? Discuss different pattern allowances.	**07**
Q.2	**(a)**	What is the significance of Manufacturing processes for recent development?	**03**
	(b)	What is meant by a core? Why and when are cores used in foundry?	**04**
	(c)	State principle of Resistance welding. Write comparison between Spot welding with Seam welding.	**07**
		OR	
	(c)	Enlist the properties of moulding sand. Explain any four properties briefly.	**07**
Q.3	**(a)**	Explain Blow holes, Misrun and warpage in terms of casting.	**03**
	(b)	State elements of Gating system with a neat sketch.	**04**
	(c)	Explain Gas welding process with a neat sketch. State types of Gas flames used in Gas welding.	**07**
		OR	
Q.3	**(a)**	What is the difference between Brazing and Soldering?	**03**
	(b)	Write short note on Laser Beam welding.	**04**
	(c)	Compare Hot working and Cold working processes.	**07**
Q.4	**(a)**	Define the followings : Ingot, Bloom and Billet	**03**
	(b)	Explain any one type of extrusion process with a neat diagram.	**04**
	(c)	Enlist Forging operations. Discuss any two operations with neat sketch.	**07**
		OR	
Q.4	**(a)**	How are seamless tubes produced?	**03**
	(b)	Distinguish between compound die and Progressive die with a neat diagram.	**04**
	(c)	What is Notching operation? Compare Blanking and Piercing operations.	**07**
Q.5	**(a)**	Define the followings : 1) Spring Back 2) Stamping	**03**
	(b)	Explain with a neat sketch Bending.	**04**
	(c)	Explain Blow moudling process with neat sketch. Also discuss its limitations.	**07**

OR

Q.5	**(a)**	What are the important properties of Plastics form Engineering point of view.	**03**
	(b)	Define the following terms in context with Advance Super finishing technology : 1) Lapping 2) Honing	**04**
	(c)	Explain in brief Burnishing and Powder coating.	**07**

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