

GUJARAT TECHNOLOGICAL UNIVERSITY**BE – SEMESTER- V EXAMINATION-SUMMER 2023****Subject Code: 3152007****Date: 27/06/2023****Subject Name: Manufacturing Technology****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.
4. Simple and non-programmable scientific calculators are allowed

		MARKS
Q.1	(a) Define manufacturing and manufacturing technology.	03
	(b) List two characteristics of conventional and unconventional manufacturing processes.	04
	(c) Briefly classify the manufacturing processes.	07
Q.2	(a) Explain working principle of casting.	03
	(b) Write a short note on pattern allowances considering casting process.	04
	(c) Write a brief note on advantages of welding over machining.	07
	OR	
	(c) Write a brief note on non-traditional machining processes.	07
Q.3	(a) What is straight polarity?	03
	(b) Differentiate between TIG and MIG welding processes.	04
	(c) Write a short note on single point cutting tool geometry.	07
	OR	
Q.3	(a) What is reverse polarity?	03
	(b) Define punching, piercing and punching.	04
	(c) Write a short note on lathe machine. Describe its components.	07
Q.4	(a) Define electrode flux.	03
	(b) Differentiate between up milling and down milling.	04
	(c) Write a short note on EDM.	07
	OR	
Q.4	(a) Define electrode coating.	03
	(b) Differentiate between center type and center less grinding operations.	04
	(c) Write a short note on AJM.	07
Q.5	(a) Define investment casting.	03
	(b) Draw a neat sketch of gating system.	04
	(c) List advantages and disadvantages of Gating System.	07
	OR	
Q.5	(a) Define metal forming.	03
	(b) Draw a neat sketch of welding geometry.	04
	(c) Explain manual metal arc welding in detail.	07
