

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V (NEW) EXAMINATION – WINTER 2023****Subject Code:3152007****Date:11-12-2023****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) Draw neat schematic diagram of surface grinding operation with complete labeling.	03
	(b) With the help of line diagrams and brief description bring out the difference between vertical and horizontal milling machine.	04
	(c) Explain single point cutting tool Geometry.	07
Q.2	(a) Draw and explain T-slot machining operation on milling machine.	03
	(b) Describe the different functions performed by cutting fluids during machining operations.	04
	(c) Describe with neat sketch	07
	(a) Taping (d) Counter Sinking	
	(b) Spot Facing (e) Spring Winding	
	(c) Spinning	
	OR	
	(c) Explain following operations with neat sketches :-	07
	(a) Honing (b) Buffing (c) Lapping (d) Burnishing	
Q.3	(a) Explain working principle of Shaper Machine.	03
	(b) Explain gang drill machine.	04
	(c) Explain the following milling machine operations with sketch. Gang milling; String milling	07
	OR	
Q.3	(a) Give Advantages and disadvantages of gating system.	03
	(b) Write short note on ECM.	04
	(c) Explain Investment casting with advantages, disadvantages and also application.	07
Q.4	(a) How an arc is initiated in Shielded Metal Arc Welding?	03
	(b) Write short note on SAW.	04
	(c) Define following terms.	07
	1)marking 2)bloom 3) Notching 4) Billet 5) piercing 6) lancing 7) Blanking	
	OR	
Q.4	(a) Write short note on LBM.	03
	(b) Explain the principle of Extrusion.	04
	(c) What is a 'pattern'? Briefly explain any two types of patterns with neat sketches.	07
Q.5	(a) Classification of Non-Traditional manufacturing process.	03
	(b) Write a short note on 'rolling'.	04
	(c) What are the types of forging methods? Explain any two.	07

OR

- | | | | |
|------------|------------|---|-----------|
| Q.5 | (a) | Explain different type of Gas Flame. | 03 |
| | (b) | Compare TIG and MIG welding. | 04 |
| | (c) | Write a short note on 'Resistance Welding'. | 07 |
