

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER– IV EXAMINATION – SUMMER 2026****Subject Code:3140204****Date:30-05-2026****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.
4. Simple and non-programmable scientific calculators are allowed.

		Marks
Q.1	(a) State working principle of lathe machine.	03
	(b) Enlist various type milling machine & explain any one.	04
	(c) Explain any six operations performed on drilling machine with neat sketch.	07
Q.2	(a) Enlist and explain various abrasives used in grinding wheels.	03
	(b) Write down difference between shaper and planer Machine.	04
	(c) Explain following parts of a lathe by neat sketches:(i) Lathe Bed (ii) Carriage (iii) Headstock (iv) Tailstock	07
	OR	
	(c) Explain Plasma arc machining process.	07
Q.3	(a) Define terms: (1) Pattern (2) Cope and (3) Drag	03
	(b) List the Type of patterns and Explain any two with Sketch.	04
	(c) Explain Precision Investment Casting with Figure.	07
	OR	
Q.3	(a) Explain (1) Lapping (2) Honing (3) Buffing.	03
	(b) Explain working of center less grinding machine.	04
	(c) Define pattern allowances. List various pattern allowances.	07
Q.4	(a) Explain the principle of Arc welding.	03
	(b) Differentiate between Hot working & Cold working process.	04
	(c) Explain difference between TIG welding and MIG welding.	07
	OR	
Q.4	(a) Explain extrusion process with neat sketch.	03
	(b) What is difference between brazing and soldering? Hence state their applications.	04
	(c) Classification of rolling processes and explain (1)Tandem rolling mills(2)Cluster rolling mills.	07
Q.5	(a) Give comparison between capston and turret lathe.	03
	(b) Write short note on : Direct or Forward extrusion process.	04
	(c) Write a short note on forging defects.	07
	OR	
Q.5	(a) Explain the principle of LBM.	03
	(b) Explain quick return mechanism in shaper machine..	04
	(c) Explain with neat sketch injection moulding process. What are the limitations of this process?	07
