

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER-IV EXAMINATION – WINTER 2025****Subject Code:3142509****Date:24-11-2025****Subject Name:Manufacturing Technology -I****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) Explain the primary cutting motions in machine tools.	03
	(b) Classify the toll materials	04
	(c) Draw the single point cutting tools with nomenclature.	07
Q.2	(a) Write working of lathe accessories	03
	(b) Explain the lathe working principle.	04
	(c) Explain the machining time for lathe operation.	07
	OR	
	(c) Draw a neat sketch of shaper machine	07
Q.3	(a) Write safety precaution for shaper machine.	03
	(b) Explain the working principle of slotter.	04
	(c) Explain the quick return mechanism	07
	OR	
Q.3	(a) Classify the drill tools.	03
	(b) Explain the purpose and application of boring machine.	04
	(c) Draw a neat sketch reaming tools terminology.	07
Q.4	(a) Classify the different types of milling cutters.	03
	(b) Explain the milling machine principle.	04
	(c) Write safety precautions for milling machine.	07
	OR	
Q.4	(a) A machine specifications for broaching machine	03
	(b) Advantages and limitation of broaching machine.	04
	(c) Write types of broaching machine and explain any one?	07
Q.5	(a) Classify the grinding machine.	03
	(b) Explain the dressing of grinding wheel.	04
	(c) Draw the grinding machine and explain the working principle.	07
	OR	
Q.5	(a) Which are the factors effects the foundation.	03
	(b) Types of lifting and transporting equipment's.	04
	(c) Write a machine tool testing and explain any one?	07
