

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-IV (NEW) EXAMINATION – SUMMER 2022

Subject Code:3141908**Date:04-07-2022****Subject Name:Manufacturing Processes****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) Classify basic machine tools used in the workshop.	03
	(b) Describe primary and secondary motions used in the machine tools.	04
	(c) Elaborate Horizontal Boring machine with a suitable sketch.	07
Q.2	(a) Describe about alignment test of lathe machine.	03
	(b) Differentiate between Capstan and Turret Lathe.	04
	(c) Elaborate Operations carried out on lathe machine with a neat sketch.	07
OR		
	(c) Explain Thread cutting operations done on Lathe machine.	07
Q.3	(a) Interpret an application of the basic machine tools.	03
	(b) Sketch and explain reciprocating sawing machine.	04
	(c) Elaborate slotter machine tool with a suitable diagram.	07
OR		
Q.3	(a) Classify Milling machine as per application and structure.	03
	(b) Explain with sketch any five operations carried out on Drilling machine.	04
	(c) Describe Radial Drilling machine with all details.	07
Q.4	(a) Differentiate between up milling and down milling.	03
	(b) Describe milling cutters with a sketch.	04
	(c) Elaborate Knee and Column horizontal Milling machine.	07
OR		
Q.4	(a) Explain helical milling operations with its limitations.	03
	(b) Explain alignment test of Milling machine with a sketch.	04
	(c) Illustrate all operations carried out on Milling machine.	07
Q.5	(a) Outline the specifications of Lathe machine	03
	(b) Describe cylindrical grinding machine with a sketch.	04
	(c) Elaborate Shaper machine with a neat sketch.	07
OR		
Q.5	(a) Summarize the specifications of Milling machine.	03
	(b) Explain types of grinding wheel and its selection process.	04
	(c) Illustrate surface grinding machine with a neat sketch.	07
