

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER– III (New) EXAMINATION – WINTER 2019

Subject Code: 2132501

Date: 28/11/2019

Subject Name: Machining Processes

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.

		MARKS
Q.1	(a) Explain primary and secondary motion in grinding operation, turning operation and drilling operation.	03
	(b) Explain Basic concepts machining process and Classify the Machine tools.	04
	(c) Give the classification of the lathe and draw neat and clean sketch of lathe.	07
Q.2	(a) Explain the self-centering and independent chucks.	03
	(b) Compare the turret and capstan lathe on the basis of functional capability.	04
	(c) Enlist the different operations carried out on the Lathe machine and explain any five operations with neat sketch.	07
OR		
Q.3	(c) Explain types of chips with neat sketch.	07
	(a) Explain headstock spindle.	03
	(b) Classify broaching tool on basis of method of operation, kind of operation and their construction	04
	(c) Explain the Marking system grinding wheel.	07
OR		
Q.3	(a) Explain lathe dog with sketch.	03
	(b) Explain truing and dressing.	04
	(c) Explain standard work feeding methods for centreless grinding process with neat sketch.	07
Q.4	(a) Explain chip formation mechanism in broaching machine.	03
	(b) Explain the slotted disc mechanism in slotting machine with neat sketch.	04
	(c) Classify boring machine. Explain horizontal boring machine & jig boring machine with neat sketch.	07
OR		
Q.4	(a) Draw the Twists Drill Geometry with neat sketch.	03
	(b) Explain driving mechanism for planner machine.	04
	(c) Enumerate various operations carried out on drilling machine. Explain any three with neat sketch.	07
Q.5	(a) Explain speed, feed and depth of cut for shaper and slotter.	03
	(b) Explain the slotted disc mechanism in slotting machine.	04
	(c) Explain different indexing methods used in milling machine with sketch.	07
OR		
Q.5	(a) Explain metal remover rate and machining time calculation for shaper, slotter and planer.	03
	(b) List out the different milling operation and write appropriate milling cutter according to milling operation.	04
	(c) Explain the role of Indexing operation in Milling Machine. Explain anyone them.	07
