Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

PDDC- SEMESTER-IV - EXAMINATION - SUMMER 2017

Subject Name: Manufacturing Process - I		Code: X41901 Date:25/05/201	Date:25/05/2017 Total Marks: 70	
		0:30 AM TO 01:00 PM Total Marks:		
	1. 2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.		
Q.1	(a) (b)	What is Machine tool? Give broad Classification of M/c tools. Explain various types of motions in Machining.	07 07	
Q.2	(a)	(i) Define the following terms used in Lathe operation.(i) Cutting Speed (ii) Feed (iii) Depth of Cut (iv) Machining Time	04	
	(b)	(ii) How can you specify Lathe M/c. Explain alignment tests of Lathe with neat sketch. OR	03 07	
	(b)	A 155 mm long 12.8 mm diameter stainless steel rod is being turned to 12.20 mm diameter on a center lathe. spindle speed =500 rev/min axial speed =207.30 mm/min. determine: cutting speed, MRR, and Machining time	07	
Q.3	(a)	With the help of a line diagram, describe the construction of radial drilling machine.	07	
	(b)	Explain the difference between Drilling & Boring Operations. OR	07	
Q.3	(a)	Name the various operations carried out on drilling M/c. Explain any two in detail.	07	
	(b)	What is jig boring? Describe its construction & working with neat sketch.	07	
Q.4	(a) (b)	Explain Down milling & Up milling with neat sketch. Write a short note on Crank & Slotted mechanism used in Shaper M/c. OR	07 07	
Q.4	(a)	Name various Operations carried out on Milling M/c. And Explain Straddle milling and Gang milling in detail with neat sketch.	07	
	(b)	Explain the Indexing Method for Gear milling with suitable example.	07	
Q.5	(a) (b)	Describe the horizontal metal band saw M/c with neat sketch. What do you understand from Grain, Grit, Structure, & Grade of Grinding wheel? Explain.	07 07	
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Q.5	(a) (b)	Describe the different method of Broaching. Write a short note on "Maintenance of Grinding wheel".	07 07	
