Seat No.:	Enrolment No.
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GUJARAT TECHNOLOGICAL UNIVERSITY PDDC - SEMESTER-IV • EXAMINATION - SUMMER • 2014

Subject Code: X41901 Date: 17-06-2014

Subject Name: Manufacturing Process-I

Time. 10.30 am - 01.00 bm	Time: 10:30 am - 01:00	pm	Total Marks: 70
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Instructions:

(b)

1. Attempt all questions.

- 2. Make suitable assumptions wherever necessary.
- 3. Figures to the right indicate full marks.

Q.1	(a) (b)	Differentiate between working and auxiliary motions in various machine tools. Draw schematic diagram of turret lathe. State the advantages of turret lathe.		
Q.2	(a)	Why alignment test is carried out? Explain important alignment features to be tested for lathe.	07	
	(b)	Explain construction and working of apron mechanism in lathe. OR	07	
	(b)	List all types of work holding devices in lathe. Explain any three with diagram.	07	
Q.3	(a) (b)	Differentiate between shaper and planner with schematic diagram. Explain in brief manufacturing of grinding wheel. OR	07 07	
Q.3	(a) (b)	Explain working principle of centre less grinding machine. Explain construction of slotting machine. And its working principle.	07 07	
Q.4	(a) (b)	List out various milling cutters. Draw any four milling cutters. Explain in brief gear cutting on milling machine. OR	07 07	
Q.4	(a)	Draw schematic diagram of radial drilling machine. State applicability of radial drilling machine.	07	
	(b)	Explain in brief alignment of drilling machine.	07	
Q.5	(a) (b)	Explain construction and working principle of horizontal boring machine. Explain construction of universal milling machine. OR	07 07	
Q.5	(a)	Explain working of internal grinder and surface grinder	07	

State advantages and limitation of broaching machine

07