Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY ME - SEMESTER IV-(OLD) EXAMINATION – SUMMER 2017

Subject Code:740801 Date: 03/05/2017

Subject Name: Rapid Prototyping and Tooling

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.

Q.1	(a)	Discuss the factors influencing in product development cycle.	07
	(b)	Write the difference between traditional prototyping and rapid prototyping.	07
Q.2	(a)	Enlist the applications of rapid prototyping.	07
	(b)	Explain any two methods which are use to acquire data points in reverse engineering.	07
		OR	
	(b)	Explain virtual reality and augmented reality.	07
Q.3	(a)	Write the short note on wire-frame models.	07
	(b)	Discuss the role of reverse engineering in modern manufacturing world.	07
		OR	
Q.3	(a)	Write the short note on measuring methods.	07
	(b)	Distinguish between the NC and CNC machines.	07
Q.4	(a)	Discuss the different file formats use for CAD files.	07
	(b)	What do you mean by "canned cycle"? Explain with suitable example.	07
		OR	
Q.4	(a)	Write the short note on types of CAPP.	07
	(b)	Classify the robots based on the coordinates system.	07
Q.5	(a)	Write the advantages and disadvantages of laminated-object manufacturing.	07
	(b)	Discuss the barriers to CIM.	07
		OR	
Q.5	(a)	Explain the working principle of fused-deposition modeling (FDM).	07
	(b)	Write the applications of selective laser sintering process.	07
