Seat No.:		Enrolment No		
	GUJARAT TECHNOLOGICAL UNIVERSITY ME – SEMESTER IV (NEW) – • EXAMINATION – SUMMER 2016			
Subject Code: 2740801			Date:04/05/2016	
Su	bject	Name: RAPID PROTOTYPING AND TOOLING		
1			Total Marks:	70
Inst	2.	Attempt all questions.		
Q.1	(a) (b)	Write the difference between traditional prototyping and rapid p Discuss the applications of rapid prototyping in various fields.		
Q.2	(a)	Enlist the different standard product data format used for CAD/CAM system and write advantages of any two formats of them.		07
	(b)	Explain the working principle of photopoymerization process. OR		07
	(b)	Describe any one powder fusion mechanism in detail.		07
Q.3	(a)	Write the key features of extrusion-based rapid prototyping syst	stems. 0	
	(b)	With neat sketch explain the principle of ultrasonic consolidatio OR	n.	07
Q.3	(a)	Write the limitations of fused deposition modeling (FDM).		07
	(b)	Describe the benefits and drawbacks of beam deposition process	ses.	07
Q.4	(a)	Write the short note on direct metal deposition process.		07
	(b)	Compare conventional toolings with rapid toolings methods.		07
0.4	()	OR	1	0.5
Q.4		Describe the concept of reverse engineering through suitable ex- Compare indirect toolings with direct toolings methods.	ample.	07 07
	(b)	Compare munect toolings with unect toolings methods.		U7
Q.5	(a)	Write the short note in non-contact reverse engineering technique	ies.	07
	(b)	Enlist the various errors belongs to rapid prototyping process post-processing errors in SLA.	es and describe	07
		OR		
Q.5	(a)	Write the criteria for selection of reverse engineering system.		07
	(b)	Enlist the seven types of materials those are commonly	used in rapid	07

prototyping processes.