Seat No.:	Enrolment No
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GUJARAT TECHNOLOGICAL UNIVERSITY ME - SEMESTER- I (OLD course) • EXAMINATION - SUMMER 2015

Subject Code: 710807		Date:16/05/2015		
Sub	oject N	Tame: Advanced Materials and Processes		
g .			Total Marks: 70	
	tructio			
		Attempt all questions.		
	2.			
	3.	Figures to the right indicate full marks.		
Q.1	(a)	Define Smart material? Discuss about the engineering applications material.	s of Smart	07
	(b)	Write any three advanced engineering polymer materials and their	applications.	07
Q.2	(a)	Explain Non-destructive evaluation techniques.		07
	(b)	Explain the importance of dimensional tolerances and surface rough in machining process.	ghness	07
		OR		
	(b)	Explain the concept design philosophy.		07
Q.3	(a)	Explain general design considerations for casting.		07
	(b)	Describe the factors to be considered during the design of weld joint OR	ints.	07
Q.3	(a)	Give design guide lines for plastic components.		07
Ų.S	(b)	Explain design factors for forging.		07
Q.4	(a)	Explain effects of thermal stresses in weld joints.		07
Ų.4	(a) (b)	Explain the concept of creativity in design.		07
	(0)	OR		U /
Q.4	(a)	Give design guide lines for extruded parts.		07
	(b)	Explain general design rules for machining a component.		07
Q.5	(a)	Write a short note for corrosion and its control.		07
	(b)	Explain basic principles of designing for economical production.		07
	` ′	OR		
Q.5	(a)	Write the short note on casting simulation and soft tools used for i		07
	(b)	Explain the effect of High & low temperatures on Performance of	materials.	07
