Seat No.:G		Enrolmer	Enrolment No		
		GUJARAT TECHNOLOGICAL UI	GUJARAT TECHNOLOGICAL UNIVERSITY		
		M. E SEMESTER – II • EXAMINATION – S	UMMER • 2014		
Subj	ect (	code: 1720809	Date: 23-06-2014		
Subj	ect ]	Name: Product Design and Development			
Tim	e: 02	2:30 pm - 05:00 pm	Total Marks: 70		
Inst	ruct	tions:			
	1.	Attempt all questions.			
		Make suitable assumptions wherever necessary.			
	3.	Figures to the right indicate full marks.			
Q-1	(a)	What is Technology Development?		7	
	( )	List the factors that are important in developing a new te	chnologically oriented product.		
	(b)			7	
		Write a product design specification for a motor bike.			
Q-2	(a)	What is benchmarking?		7	
		Explain competitive performance benchmarking.			
	(b)			7	
		Explain codes of ethics in Engineering.			
	(b)	OR  Explain the procedure for solving ethical conflicts in engineering or solving ethical conflicts in engineering ethical conflicts et	ineering	7	
	(D)	Explain the procedure for solving ethical conflicts in eng	meering.	,	
Q-3	(a)	What is defect and failure?		7	
	` ′	Enlist and Explain various failure modes for mechanical	components.		
	(b)			7	
		Explain the role of standardization in DFMA.			
Q-3	(a)	OR What is Consument Engineering?		7	
Q-3	(a)	What is Concurrent Engineering? Explain the limitations of Concurrent Engineering.		,	
	(b)	•		7	
	()	Explain different methods of cost estimations.			
		•			
Q-4		Explain the advancement and features of Material Select	ion Software in Design.	7	
	<b>(b)</b>	· · · · · · · · · · · · · · · · · · ·		7	
		Distinguish between bottoms-up and top-down approach  OR	es of Assembly modeling.		
Q-4	(a)			7	
Ų T	(b)	•		7	
	( )				
Q-5	(a)	· · ·		7	
		Explain Barriers to Creative Thinking.			
	<b>(b)</b>	· · · · · · · · · · · · · · · · · · ·	oid Manufacturing Methods and	7	
		processes.			
Q-5	(a)			7	
Q-3	(**)	Explain limitations of RP in engineering.		•	
	(b)	-	turing in RP technology.	7	

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