GUJARAT TECHNOLOGICAL UNIVERSITY
M. E. - SEMESTER – III • EXAMINATION – WINTER • 2013

Subject code: 730903   **Date: 28-11-2013**

Subject Name: Product Design

Time: 10.30 am – 01.00 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)**	What is Product design? What is product development? Explain modern product development process in details.	**07**
	(b)	What is MBTI? Explain in detail. How it is helpful in product development activity?	**07**
Q.2	**(a)**	"A common misconception is that new products correspond to major changes." Justify the statement.	**07**
	(b)	Write a short note on S-curve and new product development.	**07**
		OR	
	(b)	Explain the activities of understanding customer need in brief.	**07**
Q.3	**(a)**	What is FAST diagramming? Explain in detail with suitable example that how it can be helpful in product development?	**07**
	(b)	Explain step by step procedure of product teardown process.	**07**
		OR	
Q.3	**(a)**	Explain subtract and operate procedure of function modeling with suitable example.	**07**
	(b)	What is Force flow diagram? Explain it with binder clip example.	**07**
Q.4	**(a)**	What is benchmarking? Explain the detailed process of product benchmarking.	**07**
	(b)	What is Product Architecture? Differentiate between integral and modular type architecture with suitable example.	**07**
		OR	
Q.4		What is House of Quality? How it can be helpful? Draw, develop and explain a House of Quality for any product in detail.	**14**
Q.5	**(a)**	Explain the "6-3-5" method of concept generation for a product development with appropriate example.	**07**
	(b)	Explain five step process of concept selection.	**07**
		OR	
Q.5	**(a)**	Write a short note on Memory maps and concept generation.	**07**
	(b)	Explain basic clustering method for modular design of product with example.	**07**

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