Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–V • EXAMINATION – WINTER 2013

Subject Code: 151503 **Date: 02-12-2013**

Subject Name: Facility Layout and Material Handling Systems

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)**	Explain why material handling and plant layout activity must be combined?	**07**
	(b)	Define Plant layout. Discuss product layout with suitable example.	**07**
Q.2	**(a)**	List out various principles of plant layout. Explain any three in detail.	**07**
	(b)	"Most of ceramic industries are located near MORBI in India" Discuss with the point of view of plant location and site selection factor in plant layout.	**07**
		OR	
	(b)	How man, machine, material and movement factors affect the fix position layout? Explain.	**07**
Q.3	**(a)**	What do you meant by flow pattern? Explain flow pattern for assembly and production line with suitable sketch.	**07**
	(b)	During your any industrial visit, how can you say that any industry have an excellent plant layout?	**07**
		OR	
Q.3	**(a)**	What are the common pit-falls in selection of sites and what care will you take to avoid them?	**07**
	(b)	Explain work station layout with example.	**07**
Q.4	**(a)**	Define material handling. Explain it importance in any industry.	**07**
	(b)	Write note: Layout and productivity.	**07**
		OR	
Q.4	**(a)**	Suggest suitable site for cement manufacturing industry in India with justifications.	**07**
Q.4	**(b)**	" zero handling is the best handling" Criticize statement.	**07**
Q.5	**(a)**	Explain various principles of MH system.	**07**
	(b)	Write note: Belt conveyors.	**07**
		OR	
Q.5	**(a)**	Give (in chart) material handling equipments used in various industries. Explain any one in short.	**07**
	(b)	Explain, how will you start material handling equipment selection process in M/S PNG(p) Ltd., MORBI (manufacturer of vitrified tiles) ?	**07**

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