Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–IV • EXAMINATION – WINTER 2013

Subject Code: 141501 **Date: 30-12-2013**

Subject Name: Productivity Engineering

Time: 02:30 pm to 05:00 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)**	Discuss how does material handling methods depend on the nature of the product and the quantity of manufacture ? Give Examples.	**07**
	(b)	Discuss briefly how the material handling engineer tries to achieve the objectives.	**07**
Q.2	**(a)**	Enumerate the guiding principles of material handling.	**07**
	(b)	'Material handling analysis, plant layout and plant building forms a composite study'. - Justify	**07**
		OR	
	(b)	Distinguish fully between the product and process layout of a shop.	**07**
Q.3	**(a)**	Discuss different principles of plant layout in the industry.	**07**
	(b)	What are the limitations in designing a layout ?	**07**
		OR	
Q.3	**(a)**	What are the possible advantages of scientific layout ?	**07**
	(b)	Discuss various stages of method study.	**07**
Q.4	**(a)**	Explain the importance of standardization of method before taking time study	**07**
	(b)	How will you proceed to train workers in proposed method ?	**07**
		OR	
Q.4	**(a)**	What are the differences between operation process chart and flow process chart?	**07**
	(b)	Explain human aspect of work study.	**07**
Q.5	**(a)**	What is standard time ? Describe briefly how will you calculate 'standard time' from the observed time obtained by time study.	**07**
	(b)	What is the difference between 'production' and 'productivity'?	**07**
		OR	
Q.5	**(a)**	Explain the different techniques to improve productivity.	**07**
	(b)	Explain 'Value Enginnering'. What are its advantages ?	**07**

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