Seat No.: _____ *Enrolment No._____*

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- VIIth SEMESTER–EXAMINATION – MAY/JUNE- 2012

Subject code: 172502 **Date: 08/06/2012**

Subject Name: Productivity Improvement Methods

Time: 02:30 pm – 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)**	Explain human resource engineering and implementation methodology of Business Process Reengineering.	**07**
	(b)	What are the symptoms of poor productivity? How it can be improved..	**07**
Q.2	**(a)**	Define 'Standard time' of an operation. Briefly describe the methods used to obtain time standards.	**07**
	(b)	Give an expression for the productivity index, and describe the various subordinate ratios. Name a few kinds of productivity measures and explain how they are determined	**07**
		OR	
	(b)	Define micro motion study. What are its specific applications? How is it distinguished from memo motion study?	**07**
Q.3	**(a)**	What is SIMO chart? Explain any Ten Therblings with symbols and colour codes.	**07**
	(b)	Explain in brief the development of Business Process Reengineering.	**07**
		OR	
Q.3	**(a)**	Discuss the ten steps of operation analysis which should be followed when attempting to improve the existing method for a job	**07**
	(b)	State various steps involved in Business Process Reengineering. Give the general advantages and limitations of Business Process Reengineering.	**07**
Q.4	**(a)**	What do you understand by allowances in the context of time study? What are the various allowances and how are they determined?	**07**
	(b)	What is meant by 'Wage'? Is it different from 'real wage'? What are the essential characteristics of a good wage plan?	**07**
		OR	
Q.4	**(a)**	Classify incentive plans which tend to increase the employee's output. Discuss them and give their advantages and limitations.	**07**
	(b)	How performance can be rated? What is its importance?	**07**
Q.5	**(a)**	Define maintenance. Explain various types of maintenance.	**07**
	(b)	Explain equipment design of a wire cut machine based on ergonomics.	**07**
		OR	
Q.5	**(a)**	Explain the duties, functions and responsibilities of plant maintenance engineering department.	**07**
	(b)	What do you understand by a 'man-machine system'.? How are the man-machine systems classified?	**07**

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