

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VII (NEW) EXAMINATION – WINTER 2018****Subject Code: 2172502****Date: 15/11/2018****Subject Name: Productivity Improvement Methods****Time: 10:30 AM TO 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.

		<b>MARKS</b>
<b>Q.1</b>	(a) Enlist various technical methods used for improving productivity.	<b>03</b>
	(b) Define productivity. Discuss importance of productivity.	<b>04</b>
	(c) Discuss various causes of low productivity. Explain factors that help increasing productivity.	<b>07</b>
<b>Q.2</b>	(a) Give objectives of method study.	<b>03</b>
	(b) What is productivity index? Explain kinds of productivity measurements.	<b>04</b>
	(c) Explain basic procedure to be followed for method study.	<b>07</b>
<b>OR</b>		
<b>Q.3</b>	(a) Explain flow diagram.	<b>03</b>
	(b) Define flow process chart. Explain types of flow process chart.	<b>04</b>
	(c) Write a detail note on motion economy.	<b>07</b>
<b>OR</b>		
<b>Q.3</b>	(a) Give concept and objective of work measurements.	<b>03</b>
	(b) Define string diagram. Explain construction procedure of string diagram.	<b>04</b>
	(c) Prepare two handed process chart for writing a letter using pen.	<b>07</b>
<b>Q.4</b>	(a) Explain performance rating.	<b>03</b>
	(b) Write a note on PMTS.	<b>04</b>
	(c) Discuss in detail SIMO chart.	<b>07</b>
<b>OR</b>		
<b>Q.4</b>	(a) Explain various tools for ergonomics.	<b>03</b>
	(b) Explain human behavior and equipment design in concern with ergonomics.	<b>04</b>
	(c) Discuss development of BPR. Write steps involved in BPR.	<b>07</b>
<b>Q.5</b>	(a) Discuss various ways to fail at BPR.	<b>03</b>
	(b) Discuss Re-engineering tools.	<b>04</b>
	(c) Write a detail note on Therbligs.	<b>07</b>
<b>OR</b>		
<b>Q.5</b>	(a) Enlist different types of stop watch used for time study.	<b>03</b>
	(b) Give objective and importance of plan maintenance.	<b>04</b>
	(c) Explain types of maintenance. How plant maintenance is scheduled?	<b>07</b>

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