

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE - SEMESTER-V(NEW) EXAMINATION – SUMMER 2022**

**Subject Code:3152512****Date:09/06/2022****Subject Name:Industrial 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.
4. Simple and non-programmable scientific calculators are allowed.

		MARKS
<b>Q.1</b>	(a) Write principles of plant layout.	<b>03</b>
	(b) Discuss importance of plant location.	<b>04</b>
	(c) Discuss various factors to be considered in selecting the actual site in a particular locality.	<b>07</b>
<b>Q.2</b>	(a) Give characteristics of line flow.	<b>03</b>
	(b) Define plant layout. Give objective of good plant layout.	<b>04</b>
	(c) Give comparison between urban and rural areas in connection with the selection of plant site.	<b>07</b>
<b>OR</b>		
	(c) Discuss factors to be considered while designing the factory building.	<b>07</b>
<b>Q.3</b>	(a) List advantages from increased productivity.	<b>03</b>
	(b) Discuss various reasons of low productivity.	<b>04</b>
	(c) Discuss basic procedure of method study.	<b>07</b>
<b>OR</b>		
<b>Q.3</b>	(a) Define productivity. Give importance of productivity.	<b>03</b>
	(b) Define work study. Give role of work study.	<b>04</b>
	(c) Discuss various technical methods to improve productivity.	<b>07</b>
<b>Q.4</b>	(a) Write a note on Pre-determined motion time standards (PMTS).	<b>03</b>
	(b) Discuss string diagram with its step by step procedure.	<b>04</b>
	(c) Define flow process chart. Explain flow process chart with example.	<b>07</b>
<b>OR</b>		
<b>Q.4</b>	(a) Give definition and concept of job evaluation.	<b>03</b>
	(b) Write a detail note on Therbligs.	<b>04</b>
	(c) Discuss two handed process chart with suitable example.	<b>07</b>
<b>Q.5</b>	(a) Give characteristics of good wage/incentive system.	<b>03</b>
	(b) Define merit rating. Give objectives and benefits of merit rating.	<b>04</b>
	(c) Explain need of industrial legislation. Discuss factories act 1948.	<b>07</b>
<b>OR</b>		
<b>Q.5</b>	(a) Give concept and principle of six sigma.	<b>03</b>
	(b) Discuss concept of quality circle.	<b>04</b>
	(c) Discuss reasons for generation and accumulation of obsolete, surplus and scrap items.	<b>07</b>

\*\*\*\*\*