

# GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V EXAMINATION – SUMMER 2025

**Subject Code:3152512**

**Date:17-05-2025**

**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.

- Q.1** (a) Define plant layout. **03**  
(b) Discuss the importance of Plant location. **04**  
(c) Explain choice of site selection. **07**
- Q.2** (a) What are factors which effect plant layout? **03**  
(b) What is travel chart?. **04**  
(c) List out various types of plant layout. Explain product layout. **07**
- OR**
- (c) Explain process layout with example in detail. **07**
- Q.3** (a) What are analytical tools of plant layout? **03**  
(b) Write note: CRAFT **04**  
(c) What is productivity? Discuss productivity improvement tools and techniques. **07**
- OR**
- Q.3** (a) What are factors which effect productivity? **03**  
(b) Write note: CORELAP. **04**  
(c) Discuss area of application of work study in industries. **07**
- Q.4** (a) What is method study? **03**  
(b) Explain procedure of method analysis. **04**  
(c) Explain flow process chart with examples. **07**
- OR**
- Q.4** (a) What is man machine chart? **03**  
(b) Explain string diagram with example. **04**  
(c) What are principles of micro and motion study? Discuss. **07**
- Q.5** (a) What is Job evaluation?? **03**  
(b) Explain merit rating and its techniques. **04**  
(c) Write note: TQM and ISO:9000 **07**
- OR**
- Q.5** (a) What are tools of SQC? **03**  
(b) What is quality circle? Explain with examples. **04**  
(c) What is waste management? Discuss disposal of scrap in industries. **07**

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