

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-V (NEW) EXAMINATION – WINTER 2023****Subject Code:3152512****Date:11-12-2023****Subject Name:Industrial Engineering****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.
4. Simple and non-programmable scientific calculators are allowed.

|            |   | <b>MARKS</b> |
|------------|---|--------------|
| <b>Q.1</b> | (a) What is difference between Inspection and Quality control in Industry?  | <b>03</b>    |
|            | (b) Write a full form of CRAFT, CORELAP.  | <b>04</b>    |
|            | (c) Enlist the factors to be considered before location selection.  | <b>07</b>    |
| <b>Q.2</b> | (a) Write a full form of PMTS.  | <b>03</b>    |
|            | (b) Write a short note on ISO 9000  | <b>04</b>    |
|            | (c) Explain the difference between fix position layout and Process type layout with neat sketch.                    | <b>07</b>    |
| <b>OR</b>  |   |              |
|            | (c) Enlist the type of Plant Layout. Draw the types of Plant layout with direction of material flow.                | <b>07</b>    |
| <b>Q.3</b> | (a) Enlist the benefits of Rural or village location of Industry.   | <b>03</b>    |
|            | (b) What are the difference between operations process chart and flow process chart                                 | <b>04</b>    |
|            | (c) Write a short note on String Diagram.   | <b>07</b>    |
| <b>OR</b>  |   |              |
| <b>Q.3</b> | (a) Define ISO 14000.   | <b>03</b>    |
|            | (b) Explain two handed process chart with suitable example.   | <b>04</b>    |
|            | (c) Draw any 7 Therbligs symbols with respective activity name.   | <b>07</b>    |
| <b>Q.4</b> | (a) Enlist the types of statistical quality control charts used for quality control.                                | <b>03</b>    |
|            | (b) Difference between surplus and scrap items in context to industrial engineering product, with suitable example. | <b>04</b>    |
|            | (c) Write a short note on Work measurement.   | <b>07</b>    |
| <b>OR</b>  |   |              |
| <b>Q.4</b> | (a) Define job evaluation and six sigma concept.  | <b>03</b>    |
|            | (b) Enlist the different types of time considered for determination of time standards.                              | <b>04</b>    |
|            | (c) Explain the role of ergonomics in Industrial Engineering.   | <b>07</b>    |
| <b>Q.5</b> | (a) Draw OC ( operation Characteristic) curve.  | <b>03</b>    |
|            | (b) Explain Government incentives for entrepreneurs in your words.  | <b>04</b>    |
|            | (c) Write a short note on Industrial dispute act 1947.  | <b>07</b>    |
| <b>OR</b>  |   |              |
| <b>Q.5</b> | (a) How to identify and control of waste in Industry.   | <b>03</b>    |
|            | (b) Explain Entrepreneurship in your words.   | <b>04</b>    |
|            | (c) Write a short note on Payment of wage act 1936  | <b>07</b>    |

\*\*\*\*\*