# GUJARAT TECHNOLOGICAL UNIVERSITY
## BE - SEMESTER–V (NEW) EXAMINATION – SUMMER 2021

**Subject Code: 3152512**                                          **Date:15/09/2021**

**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.**

|  |  |  | MARKS |
|---|---|---|---|
| **Q.1** | **(a)** | Define Productivity. | **03** |
|  | **(b)** | Explain the principles of Plant layout. | **04** |
|  | **(c)** | How does Industrial engineering help to increase the productivity of an organization? Explain. | **07** |
|  |  |  |  |
| **Q.2** | **(a)** | Write a full form of CRAFT and CORELAP. | **03** |
|  | **(b)** | List the limitation of String diagram | **04** |
|  | **(c)** | Name the plant layout suitable for job production explain it with neat sketch. | **07** |
|  |  | **OR** |  |
|  | **(c)** | Name the plant layout suitable for mass production explain it with neat sketch. | **07** |
| **Q.3** | **(a)** | Briefly explain the concept ISO 9000. | **03** |
|  | **(b)** | Explain Flow Process Chart with suitable example. | **04** |
|  | **(c)** | Write a short note on Two handed process chart with suitable example. | **07** |
|  |  | **OR** |  |
| **Q.3** | **(a)** | Briefly explain the concept ISO 14000. | **03** |
|  | **(b)** | Briefly explain Man and Machine chart. | **04** |
|  | **(c)** | Draw symbols used in Therblings with its activity name. | **07** |
| **Q.4** | **(a)** | Write a full form of "SQC". | **03** |
|  | **(b)** | Define Observed time, Basic time, Normal time. | **04** |
|  | **(c)** | Write a short note on "The Indian trade unions act 1926". | **07** |
|  |  | **OR** |  |
| **Q.4** | **(a)** | Write a full form of "PMTS". | **03** |
|  | **(b)** | Explain the needs of Industrial legislation. | **04** |
|  | **(c)** | Write a short note on "Industrial employment act 1946". | **07** |
| **Q.5** | **(a)** | Explain the Acceptance sampling process. | **03** |
|  | **(b)** | Explain the role of Waste control in the industry. | **04** |
|  | **(c)** | Write your view for "Government incentives to entrepreneurs". | **07** |
|  |  | **OR** |  |
| **Q.5** | **(a)** | Explain the need of Sampling technique. | **03** |
|  | **(b)** | Explain the role of Statistical Quality Control in Industrial engineering. | **04** |
|  | **(c)** | Write a short note on Six sigma. | **07** |

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