

GUJARAT TECHNOLOGICAL UNIVERSITY**BE – SEMESTER- V EXAMINATION-SUMMER 2023****Subject Code: 3152010****Date: 23/06/2023****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.

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|------------|---|-----------|
| Q.1 | (a) Define plant layout. | 03 |
| | (b) Discuss the importance of Plant location. | 04 |
| | (c) Explain various factors to be considered for site selection. | 07 |
| Q.2 | (a) What is sales forecasting? | 03 |
| | (b) Discuss various flow patterns in plant layout design,. | 04 |
| | (c) List out various types of sales forecasting techniques. Explain any one in detail. | 07 |
| OR | | |
| | (c) Explain job evaluation process with examples. | 07 |
| Q.3 | (a) What is scheduling? | 03 |
| | (b) Write note: Ergonomics | 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: Therblings.. | 04 |
| | (c) Discuss operational process chart with examples. | |
| | | 07 |
| Q.4 | (a) What is Six sigma? | 03 |
| | (b) Explain seven tools of SQC | 04 |
| | (c) Discuss importance of OC curve in QC. | 07 |
| OR | | |
| Q.4 | (a) What is acceptance sampling? | 03 |
| | (b) Explain importance of control charts. | 04 |
| | (c) What are types of control chart? Discuss control chart used in process industries.. | 07 |
| Q.5 | (a) What is TQM? | 03 |
| | (b) Write note: ISO 9000. | 04 |
| | (c) What is PPC. Discuss its importance. | 07 |
| OR | | |
| Q.5 | (a) What is travel chart? | 03 |
| | (b) What is quality circle? Explain with examples. | 04 |
| | (c) Discuss various factory acts in India. | 07 |
