

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER– VI (New) EXAMINATION – WINTER 2019****Subject Code: 2161907****Date: 11/12/2019****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.

- Q.1** (a) Explain the importance of plant location. **03**  
 (b) Explain main objectives of SEZ. **04**  
 (c) What is meant by plant layout? States its definition. Compare product layout with process layout. **07**
- Q.2** (a) Define the following: **03**  
 (i) Production (ii) Planning (iii) Control.  
 (b) What is line balancing? Discuss about precedence diagram. **04**  
 (c) What is sequencing? Discuss about various assumption made to solve problem by sequencing method. **07**
- OR**
- (c) Name the various methods of sales forecasting. Describe any two of them. **07**
- Q.3** (a) Explain SIMO chart. **03**  
 (b) What is method study? Explain objective of method study. **04**  
 (c) Explain motion economy related to –(a) Human body (b) Work place layout (c) Design of tools and equipment. **07**
- OR**
- Q.3** (a) List the different equipments used for time study and explain fly back timing method. **03**  
 (b) Describe “Critical Examination “step. **04**  
 (c) Describe ranking method of job evaluation with its advantages and disadvantages. **07**
- Q.4** (a) Define Entrepreneur and Entrepreneurship. **03**  
 (b) Briefly state sources of industrial finance. **04**  
 (c) How does the multiple activity charts help to reduce the idle time of men and machines? **07**
- OR**
- Q.4** (a) Define job evaluation. Discuss the objectives of job. **03**  
 (b) Write a short note on quality audit. **04**  
 (c) Explain importance of safety provisions in case of machinery, hoist and lifts, precaution of fire as mentioned in Factory act. **07**
- Q.5** (a) Explain: Principles of Quality Control. **03**  
 (b) What are the penalties kept under Payment of Wages Act? **04**  
 (c) Write a short note on TQM. **07**
- OR**
- Q.5** (a) Explain following term with respect to O.C. curve : **03**  
 (i) Producer’s risk (ii) Consumer’s risk  
 (b) Discuss the effect of change in lot size on O.C. curve. **04**  
 (c) Describe the method of constructions p- chart and 100p chart. **07**