

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VI • EXAMINATION – WINTER 2013****Subject Code: 161907****Date: 11-12-2013****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) Discuss the incentives which are being given to the entrepreneurs by the government. **07**  
(b) What is industrial legislation? Name the different acts which are helpful in resolving the industrial disputes. Discuss any one act in detail. **07**
- Q.2** (a) Describe the characteristics of good wage plan. Discuss any one wage plan. **07**  
(b) List the factors which should be considered for the selection of site for the automobile industry. **07**
- OR
- (b) What is plant layout? Discuss different plant layouts giving suitable example. **07**
- Q.3** (a) Discuss the least square method of sales forecasting. **04**  
(b) What is process planning? Discuss the steps involved in process planning. **05**  
(c) Discuss - Assembly Line Balancing. **05**
- OR
- Q.3** (a) Discuss the method of job sequencing to minimize the machine idle time. **04**  
(b) Which are the main functions of production planning and control department? **05**  
(c) Discuss – Standardization and Simplification. **05**
- Q.4** (a) Discuss the functions of inspection department in a manufacturing plant. **04**  
(b) What is quality control? State important objectives of statistical quality control. **05**  
(c) Discuss – Total Quality Management. **05**
- OR
- Q.4** (a) How is the OC curve prepared? **04**  
(b) Define the control chart. Discuss the control charts for variables. **05**  
(c) Discuss – Sampling Plans. **05**
- Q.5** (a) Explain the following in connection with time study. **04**  
(i) Selecting the job.  
(ii) Breaking the job into elements.  
(b) State the objectives of work measurement. Name the work measurement techniques. **05**  
(c) Explain in brief the normal work area and work place design. **05**
- OR
- Q.5** (a) Describe the effects of the following on the productivity. **04**  
(i) Plant layout.  
(ii) Working conditions.  
(b) Describe the ways to increase the industrial productivity. **05**  
(c) What is job evaluation? Discuss any one method of job evaluation. **05**

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