

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE - SEMESTER-VIII • EXAMINATION – SUMMER 2014**

**Subject Code: 182501****Date: 05-06-2014****Subject Name: Production and Operations Management****Time: 10.30 am - 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.

- Q.1 (a)** Explain the role, scope and importance of PPC. Discuss interrelationship of PPC with other department **07**
- (b)** What should be the main functions of PPC department in following companies? **07**  
 i) Automobile component mfg. company ii) Cement company iii) Pharmaceutical company and iv) Electronics toys mfg. company.
- Q.2 (a)** Discuss and differentiate project planning V/s production planning. **07**
- (b)** Discuss exponential smoothing method and selection of smoothing coefficient. Also discuss linear regression model. **07**
- OR**
- (b)** Discuss the importance of sales forecasting function in an organization. Classify sales forecasting techniques. **07**
- Q.3 (a)** Differentiate between routing, scheduling and loading. What are the factors affecting scheduling? **07**
- (b)** What is index? Under which condition the index method of scheduling is applied? Take an example and explain index method of scheduling. **07**
- OR**
- Q.3 (a)** Write brief note on “Types of Gantt charts as applied to scheduling” **07**
- (b)** Give the classification of costs based on behavior. Explain the various costs associated with production. Why it is necessary to analyse the production costs? **07**
- Q.4 (a)** Write brief note on “Aggregate planning and its pure strategies”. **07**
- (b)** List out different methodologies of line balancing. How line balancing technique can be applied in any organization/industry? **07**
- OR**
- Q.4 (a)** What is Inventory control? Describe various functions of Inventory control. Explain its importance in an industrial undertaking. **07**
- (b)** What is Economic Order Quantity? Derive the formula for the Economic Order Quantity. **07**
- Q.5 (a)** Enlist the various methods of classification of inventory. Describe briefly the i) VED analysis, ii) SDE analysis and iii) VEIN analysis. **07**
- (b)** Discuss-Deterministic models for inventory control. **07**
- OR**
- Q.5 (a)** Discuss make or buy decision and the cost-benefit analysis associated therewith. **07**
- (b)** Write short note on “Basic inputs to MRP” **07**

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