

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VIII(OLD) • EXAMINATION – WINTER 2017****Subject Code:182501****Date:10/11/2017****Subject Name: Production and Operations Management****Time:02.30 TO 05.00****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) Define Production Planning and Control (PPC) functions, prerequisites and steps in PPC. **07**  
(b) Write short note on Plant capacity, machine capacity. Define: Make or buy decision. **07**
- Q.2** (a) Explain how general characteristics, dimensional analysis, workpiece control and tolerance analysis is helpful in Production and operations management. **07**  
(b) Explain importance of the strategic role of forecasting in supply chain management. **07**
- OR**
- (b) Write any two forecasting methods in detail. **07**
- Q.3** (a) What are the objectives of scheduling? Write short note on GANTT chart. **07**  
(b) Explain aggregate planning strategies. Discuss graphical method for aggregate planning. **07**
- OR**
- Q.3** (a) Write short note on hierarchical and collaborative planning. **07**  
(b) Explain breakeven analysis with neat sketch. How it is helpful for plant and equipment selection? **07**
- Q.4** (a) Write importance and objectives of material management. Discuss: costs trade-off. **07**  
(b) Write components of integrated materials management. **07**
- OR**
- Q.4** (a) Write short note on purchase model with shortages (instantaneous supply). **07**  
(b) What are the objectives of assembly line balancing? Discuss concept of mass production system. **07**
- Q.5** (a) Compare and write characteristics of production systems for job order type, batch production type and continuous production. **07**  
(b) Define the following term: **07**  
ABC, VED, XYZ, HML, FSN, MRP, Theory of constraint.
- OR**
- Q.5** (a) Prepare operation route sheet for any one case study. **07**  
(b) Write short note on Bill of material. Write concept of MRP concept and calculations. **07**

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