

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VIII (NEW) EXAMINATION – WINTER 2018****Subject Code: 2182502****Date: 29/11/2018****Subject Name: Recent Advances in Manufacturing****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.

**MARKS**

- Q.1** (a) Explain concept of value analysis. **03**  
 (b) Define value analysis and value engineering. **04**  
 (c) Discuss Japanese approach for productivity improvements. Discuss role of SMED in manufacturing improvements. **07**
- Q.2** (a) Draw ERP architecture. **03**  
 (b) Give advantages of value analysis. **04**  
 (c) Differentiate value analysis and value engineering. When to apply value analysis? **07**
- OR**
- (c) Write a detailed note on E-manufacturing and E-commerce. **07**
- Q.3** (a) Write a note on material requirements planning. **03**  
 (b) Discuss objective of value analysis. **04**  
 (c) Discuss various techniques of value analysis and value. **07**
- OR**
- Q.3** (a) Explain importance of Kanban system? **03**  
 (b) Explain various tests for value analysis. **04**  
 (c) Discuss pre-requisite of JIT. Discuss procedure for JIT implementation. **07**
- Q.4** (a) Define JIDOKA. Give its importance. **03**  
 (b) Explain POKAYOKE technique with its tools. **04**  
 (c) Discuss KAIZEN philosophy in detail. **07**
- OR**
- Q.4** (a) Explain concept of zero inventories. **03**  
 (b) Define supply chain managements. Give role of supply chain. **04**  
 (c) Discuss different models of supply chain management. Explain optimization of transport network. **07**
- Q.5** (a) Explain role of MIS in enterprise. **03**  
 (b) Where POKAYOKE works well? **04**  
 (c) Explain various hardware and software used for ERP implementation. **07**
- OR**
- Q.5** (a) Explain role of ERP in productivity improvements **03**  
 (b) What is information value? How information value can be measured? **04**  
 (c) Discuss different ERP modules and their implementation procedure. **07**

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