

Student Roll No: \_\_\_\_\_

**GANPAT UNIVERSITY**  
**M.Tech. Sem. III<sup>nd</sup> Mechanical (AMT)**  
**CBCS Regular Examination Dec/January-2013**  
**3ME302 World Class Manufacturing**

Time: 3 Hrs]

[Total Marks: 70

Instructions:-

1. Attempt **all** Questions.
2. Figure to the **right** indicate full marks.
3. Answers to the two section must be written in **separate** drawing papers
4. Assume suitable data if **necessary**.
5. Draw neat sketch wherever essential.

**SECTION - I**

**Q.1** (A) What are the Issues in customer management in supply chain management? Explain (4)

(B) Why Rapid Prototyping required? Selective Laser Sintering Rapid Prototyping. (4)

(C) What is world class manufacturing? Discuss the framework for WCM (4)

**OR**

**Q.1** (A) What is operation/production strategy? Explain the Operations Strategy Model. (4)

(B) What is Rapid Prototyping? Fused Deposition Modeling Rapid Prototyping. (4)

(C) Why supply chain management required? Explain the supply chain elements. (4)

**Q.2** (A) What is benchmarking? Why benchmarking required? Explain objective of the benchmarker's (3)

(B) Explain importance of benchmarking. How benchmarking helpful in solving business problem? (4)

(C) What is six sigma? Where can six sigma be applied? Explain six sigma goals. (4)

**OR**

**Q.2** (A) Explain benchmarking process in detail. (4)

(B) Explain six sigma tools for implementation with one case study. (4)

(C) Explain roles and responsibility in six sigma. (3)

**Q.3** **Attempt all the Questions.** (12)

(A) Explain the The Bullwhip Phenomenon in supply chain management

(B) Explain the level of six sigma.

(C) Explain types of benchmarking? When not to benchmark.



## SECTION – II

- Q.4 (A) Explain the manufacturing cells as a strategies for Lean manufacturing (4)  
(B) Explain the External and internal condition influencing company' strategy. (4)  
(C) Explain the Lean thinking principles (4)
- OR**
- Q.4 (A) Important of Framework for manufacturing/operations strategy. (4)  
(B) Explain the Production Strategic Planning for Crisis using the example. (4)  
(C) Defining Value and Waste? Explain the seven wastes. And what are the steps for Eliminating Waste. (4)
- Q.5 (A) What is theory of constrain principles? Explain the need, Advantages and disadvantages of theory of constrain. (4)  
(B) What is concurrent engineering? Explain concurrent engineering V/S sustainability (4)  
(C) Explain 5's implementation plan. (3)
- OR**
- Q.5 (A) What is 5's? Explain 5's performance Excellence model. (4)  
(B) Explain procedure for concurrent engineering implementation (3)  
(C) Explain the steps in theory of constrain process with one case study. (4)
- Q.6 **Attempt all the Questions.** (12)  
(A) Explain the Value stream mapping as a strategies for Lean Manufacturing  
(B) Explain the Element of Operation strategy.  
(C) Explain the Type of operation strategy.
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