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## P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belgaum)

Eighth Semester, B.E. - Industrial and Production Engineering

Semester End Examination; June/July - 2015

### World Class Manufacturing

Time: 3 hrs

Max. Marks: 100

*Note: Answer any FIVE full questions, selecting atleast TWO full questions from each part.*

#### PART – A

1. a. What is world class manufacturing? Explain the manufacturing excellence and competitiveness. 10
- b. Explain in detail the Hall's frameworks of value-added engineering. 10
2. a. What are the principles of world class manufacturing? Explain briefly. 10
- b. Describe the practices of world class manufacturing. 10
- 3.a. Explain the following : 10
  - (i) Balance source card techniques      (ii) Value stream mapping
- b.' Describe about the Data collection for understanding process performance and tracking improvement. 10
- 4.a. Define the Bench Marking. Describe the Bench Marking process. 10
- b. Explain the following : 10
  - (i) What to bench mark                      (ii) Systematic search

#### PART – B

- 5.a. Define re-engineering. Give the themes with suitable examples. 10
- b. Write notes on differentiate re-engineering with automation and restructuring. 10
6. a. Explain the following of quality systems in detail : 14
  - (i) ISO 9000                      (ii) ISO 14000
- b. Write note on DEMING'S AWARD. 6
7. a. Describe briefly the following :
  - (i) SIX SIGMA- method of improvement 10
  - (ii) DFSS
- b. Explain DMAIC methodology of SIX SIGMA. 10
8. a. Describe activity based costing [ABC] and traditional costing systems briefly. 10
- b. What is theorem of constraints? What are the five focusing steps and to active the goal describe each briefly? 10