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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**

**Total Quality Management**

Time: 3 hrs

Max. Marks: 100

*Note: i) Answer any FIVE full questions selecting at least TWO full questions from each part.  
ii) Any missing data may be suitably assumed.*

### PART - A

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|------|--|----|
| 1 a. | List out the fourteen TQM points out forth by drawing.   | 10 |
|      | b. Discuss briefly the contributions of Juran and Taguchi in quality control.  | 10 |
| 2.a. | Briefly explain the four fitnesses.  | 10 |
|      | b. With the help of a block diagram, briefly explain the quality of conformance and quality of design with supporting methods. | 10 |
| 3 a. | With the help of a figure, briefly explain the four revolutions in Management thinking.  | 10 |
|      | b. Briefly explain product out and market – in concept with neat sketches.   | 10 |
| 4 a. | With the help of a block diagram, briefly explain management by process.   | 10 |
|      | b. Briefly explain as to, how the seven QC steps and seven QC tools work together.   | 10 |

### PART – B

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|------|---|----|
| 5 a. | Briefly explain the three stages and Nine steps in defining the customer requirements.  | 10 |
|      | b. With the help of a block diagram indicate the seven management and planning tools in relation to PDCA, the seven QC steps and the seven QC tools.  | 10 |
| 6 a. | Briefly explain Noble goals, Intermediate goals and annual goals.   | 10 |
|      | b. With the help of a block diagram, briefly explain the three typical phases of TQM Phase – In.  | 10 |
| 7 a. | With the help of a block diagram, briefly explain the proactive, reactive and control phases in Hoshin Management.  | 10 |
|      | b. Compare management by Objectives and Hoshin Management.  | 10 |
| 8 a. | By means of a block diagram, indicate the infrastructure for networking (Explanation not required).   | 10 |
|      | b. Compare the TQM Indirect Approach to organizational Development with the traditional direct approach. Indicate the related infrastructure Elements (Drawing the table word be precise explanative not required.) | 10 |