R13

Code: 13A03606

## B.Tech III Year II Semester (R13) Regular & Supplementary Examinations May/June 2017

## **TOTAL QUALITY MANAGEMENT**

(Mechanical Engineering)

Time: 3 hours Max. Marks: 70

## PART - A

(Compulsory Question)

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- 1 Answer the following:  $(10 \times 02 = 20 \text{ Marks})$ 
  - (a) Define quality cost. Mention four categories of quality cost.
  - (b) Mention any four principles of TQM.
  - (c) Name the 5's (five's) in TQM.
  - (d) Define kaizen.
  - (e) Mention the measures of central tendency and dispersion.
  - (f) What are the advantages of process chart?
  - (g) Define bench marking.
  - (h) What does Deming cycle stand for?
  - (i) What are the advantages of reengineering?
  - (j) What is DPMO on six sigma project?

## PART - B

(Answer all five units,  $5 \times 10 = 50 \text{ Marks}$ )

UNIT – I

- Write fourteen steps of Deming's philosophy for improving quality, productivity and competitiveness.
  - OR
- 3 Discuss about the basic concepts and the three elements of TQM.

[ UNIT - II ]

- 4 Explain about quality measuring system with suitable case study.
  - OR
- 5 Explain any two total quality management tools with example.

(UNIT – III)

- 6 Explain in detail about the FMEA procedure.
- OR
- 7 Briefly explain the structure of a quality circle.

UNIT – IV

- 8 Explain the Taguchi's Quality Loss Function.
- OR
- 9 Explain about Poka-Yoke with suitable case study.

[ UNIT - V ]

10 Compare the two important approaches in six sigma.

OR

11 Discuss about the elements of supply chain management.

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