Code: 13A03606

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

## **TOTAL QUALITY MANAGEMENT**

(Mechanical Engineering)

Max. Marks: 70 Time: 3 hours

## PART - A

(Compulsory Question)

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

## PART - B

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

[ UNIT - I ]

- 2 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.
- Explain any two total quality management tools with example. 5

(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.
- 9 Explain about Poka-Yoke with suitable case study.

[ UNIT - V ]

10 Compare the two important approaches in six sigma.

11 Discuss about the elements of supply chain management.