

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-IV • EXAMINATION – WINTER • 2014****Subject Code: 142502****Date: 02-01-2015****Subject Name: Fundamentals of Quality Management****Time: 02.30 pm - 05.00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1 (a)** Define: (1) Quality, (2) Quality Assurance, (3) Quality Control, (4) Statistical quality control. And enlist various dimension of quality. **07**
- (b)** Discuss Deming's 14<sup>th</sup> points for quality management. **07**
- Q.2 (a)** Explain six sigma in detail. **07**
- (b)** Give detail explain of TQM and PDCA cycle. **07**
- OR**
- (b)** Define and explain following terms: (1) Optimum Costs (2) Prevention Costs (3) Failure Costs (4) Appraisal Costs. **07**
- Q.3 (a)** Explain single sampling plan and double sampling plan. **07**
- (b)** Discuss Melcolm baldridge national award and Deming award. **07**
- OR**
- Q.3 (a)** Explain ISO 9000 and ISO 14000. **07**
- (b)** Discus OC curve with neat sketch. Also Explain producer's risks and consumer risks. **07**
- Q.4 (a)** Explain X-bar and R- chart in detail. **07**
- (b)** Explain seven quality tools. **07**
- OR**
- Q.4 (a)** Explain concept of QFD with suitable example. **07**
- (b)** Give differences: 1) Chance causes and Assignable causes, 2) P-Chart and C-chart, 3) Variables and Attributes. **07**
- Q.5 (a)** Write short note on quality management scenario in Indian industries. **07**
- (b)** Define service. Explain the classification of services. **07**
- OR**
- Q.5 (a)** Write short note on capability maturity model (CMM). **07**
- (b)** What is the Importance of Software? Also give applications of Software in Quality Control and Management. **07**

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