

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE SEM-VII Examination-Nov/Dec.-2011

Subject code: 172504

Date: 26/11/2011

Subject Name: Quality Management and Reliability engineering

Time: 10.30 am-01.00 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) What do you mean by Quality management ? Explain strategic quality management. **07**
(b) What is the definition of quality preferred by JURAN? Write his message related to TQM with the 10 points that he proposed. **07**
- Q.2** (a) Explain Quality Assurance, Quality Circles, and Quality Audits. **07**
(b) What do you mean by ISO 14000, explain in details. **07**
- OR**
- (b) What is Benchmarking ? Explain its process. **07**
- Q.3** (a) Explain the principles of TQM. **07**
(b) Write a short note on Kaizen and discuss its techniques. **07**
- OR**
- Q.3** (a) What is Six Sigma? Why six sigma is needed? **07**
(b) What are the objectives of evaluating costs of quality? **07**
- Q.4** (a) Explain Total productive maintenance. Write its objectives and benefits. **07**
(b) What are the seven magnificent quality tools and its benefits. **07**
- OR**
- Q.4** (a) What do you mean by QFD and its benefits. **07**
(b) What is Taguchi approach to robust design. **07**
- Q.5** (a) Explain FMECA and its benefits, Types and Concept. **07**
(b) What is Reliability Engineering? Explain basic elements of reliability. **07**
- OR**
- Q.5** (a) Differentiate between MTBF and MTTR related to Reliability concepts. **07**
(b) What is Importance of IPR? Write a short note on Industrial design **07**
