

GUJARAT TECHNOLOGICAL UNIVERSITY**M. E. - SEMESTER – III • EXAMINATION – WINTER • 2013****Subject code: 732803****Date: 28-11-2013****Subject Name: Quality Engineering & Management****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 TQM? Explain about need of it. 07
(b) What are the benefits that could be realized by implementing an ISO 9000 Quality Systems? 07
- Q.2** (a) What do you mean by TPM? What are the objectives of TPM? 07
(b) Define Concurrent Engineering? What are the Principles of Concurrent Engineering? 07
- OR**
- (b) Differentiate between process FMEA and Design FMEA? 07
- Q.3** (a) What is Six Sigma? Why six sigma is needed? 07
(b) What is Taguchi Approach to Robust Design? 07
- OR**
- Q.3** (a) What kind of analysis improves the Quality of Product or Service of an Organization? 07
(b) Define the Quality. What are the Different views of Quality? 07
- Q.4** (a) What do you mean by Quality Circle? What are the benefits of Quality Circle? 07
(b) What is Benchmarking? Why Benchmarking is necessary? 07
- OR**
- Q.4** (a) What is Lean Manufacturing? Explain in Details. 07
(b) What is SPC? What are the tools used for SPC? 07
- Q.5** (a) What do you understand from JIT? What benefits occur to the organization from the application of JIT Technique? 07
(b) Define the following terms 07
1. Binomial Distribution
 2. Poisson Distribution
 3. Normal Distribution
- OR**
- Q.5** (a) What do you understand by term “QFD”? Explain QFD Process. 07
(b) What do you mean by Quality Cost? List out the Components of Internal and External Failure. 07
