

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME Semester –III Examination Dec. - 2011

Subject code: 732803

Date: 08/12/2011

Subject Name: Quality Engineering and 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) Define the following terms 07
(i) Binomial Distribution
(ii) Poisson Distribution
(iii) Normal Distribution
(b) Explain about following terms. 07
(i) SPC (ii) Skewness
- Q.2** (a) What do you mean by TQM ? Explain about need of it. 07
(b) Define Quality. What are the different views of Quality? 07
- OR**
- (b) Differentiate between Inspection and Quality Control 07
- Q.3** (a) Define DOE. When to use DOE ? Explain 07
(b) Define Benchmarking. Why Benchmarking is necessary? 07
- OR**
- Q.3** (a) What are the benefits that could be realized by implementing an ISO 14000 Quality Systems? 07
(b) What are the Principles of BPR ? 07
- Q.4** (a) What is Taguchi approach to Robust Design? 07
(b) What are the benefits using Taguchi Quality Loss Function. Explain it with example. 07
- OR**
- Q.4** (a) What do you understand from JIT ? What benefits can occur to the company from the application of JIT Technique? 07
(b) Define Concurrent Engineering? What are the Principle of Concurrent Engineering? 07
- Q.5** (a) Define following terms. 07
(i) Advisability (ii) MTBF (iii) MTTF
(b) What do you meant by TPM? What are the objectives of TPM? 07
- OR**
- Q.5** (a) What is Kaizen ? What advantages can an optimization derive from implementation of Kaizen? 07
(b) Differentiate between process FMEA and Design FMEA. 07
