

Name : .....

Reg. No: .....

**EIGHTH SEMESTER B.TECH (ENGINEERING) DEGREE EXAMINATION, MAY 2012****ME/PE/AM 04 801 - QUALITY ENGINEERING & MANAGEMENT  
(2004 Admissions)****Time : Three Hours****Maximum : 100 Marks****PART - A**

- I (a) Define quality. Also describe the need for quality control in Industries?  
 (b) What are the obstacles in the implementation of TQM?  
 (c) Write short note on quality circles?  
 (d) Define Kaizen. What is its importance in Quality Management?  
 (e) Differentiate between variable control charts and Attribute Control Charts?  
 (f) Write a short note on the statistical tools used in Quality Control?  
 (g) Define the terms: (i) Reliability (ii) MTBF?  
 (h) Illustrate how system Reliability may be determined for components in series and parallel?

**(8 × 5 = 40)****PART - B**

- II (a) Explain the following :-  
 (i) Strategic Quality Management  
 (ii) Total Quality Management  
 (Or)  
 (b) Discuss the philosophy of Philip. B. Crosby about Quality Management. Explain the various steps involved in it?
- III (a) What do you mean by FMEA? Explain the different stages of this analysis? Also mention the documentation procedure adopted?  
 (Or)  
 (b) Explain the features of ISO 9000 : 2000 Quality Standard. Also elaborate the benefits of ISO certification?
- IV (a) Explain the concept of process capability Analysis. What are process Capability Indices? Mention the benefits of Process capability Analysis?  
 (Or)  
 (b) What are control charts? How are they classified? Explain the use of control charts for process control?
- V (a) Explain the concept of life Testing. How are Life Tests classified? Also mention the importance of life Tests in Quality control?  
 (Or)  
 (b) Explain the following terms:-  
 (i) ATI  
 (ii) AQL  
 (iii) Sequential Sampling

**(4 × 15 = 60)**